1977

Three Approaches To The Influencing Of Self-disclosure And Trust Among Prison Inmates

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THREE APPROACHES TO THE INFLUENCING OF SELF-DISCLOSURE AND TRUST AMONG PRISON INMATES

by

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Submitted in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

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The University of Western Ontario

London, Ontario

October, 1976

ABSTRACT

The present study investigated the effects of preinterview modeled self-disclosure on prison inmates' subsequent self-disclosure. Of primary interest was the effect that preinterview modeling + vicarious reinforcement, modeling + direct reinforcement, and modeling alone would have on facilitating self-disclosure throughout the interview.

Self-disclosure is simply defined in this study as verbal behavior by which one person seems to be telling another something about himself. No judgement is made here regarding the value or accuracy of such disclosures. The relationship of trust to self-disclosure in an interview situation was viewed in an explanatory manner. There were one hundred newly admitted inmates pretested. Sixty of these were randomly assigned to one of three experimental treatment groups--modeling + vicarious reinforcement, modeling + direct reinforcement, modeling alone, and a control group with neither modeling nor reinforcement.

The Hill Interaction Matrix was used to assess the functioning level of the three male classification officers employed as interviewers for the study. The experimental subjects, before participating in a half hour interview, received individual instructions, exposure to an inmate model on audiotape exhibiting a high level of self-disclosure and vicarious, direct or no reinforcement, depending upon the experimental group to which they were randomly assigned. The control subjects, after receiving initial instructions, were taken directly to the half hour interview without prior treatment. The level of written self-disclosure was assessed by the Self-Disclosure Sentence Completion Blank (SDSB). Verbal behavior during the interview was assessed by

the Haymes Self-Disclosure Measure for tape recorded interviews. The Interpersonal Trust Scale (ITS) was employed to measure the variable of trust.

Factorial designs consisting of a 4 (treatments) x 3 (interviewers) and a 4 (treatments) x 3 (interviewers) x 3 (time segments) were used to test the hypotheses that: (1) modeling + vicarious reinforcement would have a stronger effect than modeling + direct reinforcement on self-disclosure and trust; that (2) modeling + vicarious, and modeling + direct reinforcement will produce greater significance than a modeling alone condition in self-disclosure and trust, and that (3) the modeling + vicarious reinforcement, modeling + direct reinforcement, and modeling alone conditions will show significantly more self-disclosure and trust than subjects in the control condition. An analysis of variance and an analysis of covariance indicated significant treatment main effects on the Self-Disclosure Sentence Completion Blank. There were also significant treatment and segment main effects on the Haymes Self-Disclosure. Although trust was recorded at a higher level after treatment, the difference was not statistically significant. Throughout the study, no significant interviewer main effects were found, nor were there any significant interactions between treatments and interviewers.

The Newman-Keuls Multiple Comparison Method, employed to measure specific differences between treatment conditions, indicated that modeling + vicarious reinforcement produced a significantly greater effect than all other treatment conditions employed in the study. On both the written and verbal dependent measures of self-disclosure, the results indicated that vicarious reinforcement had a greater effect than the modeling +

direct reinforcement, and modeling alone conditions. Direct reinforcement showed significant results over modeling alone on written self-disclosure but not on verbal disclosure. Finally, each of the modeling + reinforcement treatments, but not modeling alone, produced a significantly greater level of self-disclosure than the control condition. Overall, it was found that preinterview modeling + vicarious reinforcement appeared to produce the most effective self-disclosure results.

Along with the limitations of the study, suggestions for continued interview behavior research as well as implications for psychotherapy techniques in a correctional setting were discussed.

ACKNOWLEDGEMENTS

I wish to express my gratitude and sincere appreciation to Dr. August Scheid, my committee chairman and friend, who guided, challenged and encouraged my work throughout. Appreciation is also expressed to committee members, Dr. Donald Blocher, Dr. Theodore Hallberg, Dr. Thomas Siess, and Dr. Gordon Turner, for their helpful suggestions and criticisms. I would also like to thank the Department of the Solicitor General for making this research possible.

It is to my wife Cathy, whose assistance, support and understanding contributed so greatly to this research and the success of my graduate studies that goes my deepest expression of love and gratitude. Finally, thanks to my son David who provided so many refreshing moments and did not destroy the pages.

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CHAPTER I

INTRODUCTION

Contemporary methods for the modification of human behavior have until recently relied heavily upon verbal influence procedures for inducing changes in social behavior, all operative within the context of a social relationship. Some psychotherapy outcome studies indicate that the amount of benefit people derive from such treatments has been overestimated (Bandura, 1971; Eysenck, 1952; 1961; 1964; 1965; 1967). Various other reviews dispute these findings and interpretations. Although some therapists produce negative changes in their clients, these are neutralized by the positive influence of the more effective therapists when experimentals are compared with controls (Bergin et al. 1963; Cross, 1964; Rogers & Dymond, 1954). The overall result is that there remains modest evidence that psychotherapy works (Bergin, 1971).

Despite the modest support for verbal psychotherapeutic efforts, there is a large portion of the deviantly behaving population, often referred to as antisocial personalities, who generally prove unresponsive to traditional techniques. Deviant behavior frequently leads to incarceration in a penal institution or placement under some sort of legal supervision. In institutions for both juvenile and adult offenders there is a need for more efficacious systematic programs in achieving behavioral and attitudinal change (Bandura, 1969a).

Martinson's (1975) insistence that almost nothing works in corrections has been substantially challenged by Adams (1975) and Palmer (1975). They feel that correctional treatment has been, and can be, more efficacious than we have recently been led to believe. Fortunately, recognition of the need for successful treatment with crime, its prevention and control, is increasing.

Research data strongly suggest that delinquent behavior frequently has a history of antisocial behavior patterns extending back at least into middle childhood years (Bandura & Walters, 1963; Glueck & Glueck, 1930; 1950; McCord & Zola, 1959; Powers & Witmer, 1951). This further substantiates the view that delinquent behavior presents a serious and increasing problem if a solution is to be found for the good of society (Sarason & Ganzer, 1969). As a consequence, in recent years new treatment approaches are growing rapidly. They are designed to achieve psychological changes through guided learning experiences (Bandura, 1969a; 1969b), and have the capacity of offering real hope of rehabilitation for some of the most neglected deviant populations (Bandura, 1961) that have generally proved resistant to more traditional treatment techniques (Sarason & Ganzer, 1969).

Traditional and Behavioral Therapies

Traditional and behavioral therapists differ in therapeutic procedures, in goals to be achieved, and in ways to state and analyze a problem. The development of the behavior therapies has been largely based on experimental findings (Eysenck & Beech, 1971; Krasner, 1971; London, 1964; Rachman, 1963). They include methods of behavior modification

based on modern learning and laboratory practice (Eysenck, 1959). Although behavioral and traditional approaches postulate somewhat different causal systems and treatment procedures, they do involve some common change processes (Bandura, 1971; Murray & Jacobson, 1971). Murray and Jacobson (1971) have advanced an integrated conceptualization of the methods used in traditional and behavioral psychotherapy within the context of a modern view of the learning process. In an examination of traditional psychotherapy, emphasizing the psychoanalytic and the client-centered forms of therapies, the authors conclude that many of the changes occurring in the psychotherapeutic situation, generally attributed to personal growth or personality reorganization, can be viewed more productively as the end product of cognitive, emotional, and social learning. Bandura (1969a; 1971) further states that psychodynamic therapists may not be fully aware that in their insight-oriented interview approaches, they reward their clients when they perform desirably, and negatively reinforce them when they engage in maladaptive behavior. Investigators have also shown that traditional therapists reduce anxiety in their clients by their permissive and supportive reactions toward the clients' distressful and disturbing self-revelations (Dittes, 1957a; 1957b; Murray, 1954; 1956; 1962; 1964; 1968), and therefore, the therapists model attitudes, values, and interpersonal modes of behavior that are then adopted by the clients (Bandura, 1969a, 1971), as evidenced by the fact that the direction of change in values of successful patients is toward those of the therapist (Rosenthal, 1955).

Traditionally oriented psychotherapy may be viewed as a system that treats persons who are experiencing emotional pain and conflict resulting

from unsuccessful interpersonal interactions (Murray & Jacobson, 1971). Through the establishment of a relationship with the therapist, the person experiences the arousal of hope and renewed self-confidence, as well as the extinction of his anxiety (Shapiro, 1971). It is the therapist's task to clarify, evaluate, and modify the belief systems and assumptive world of his client, helping him to relate and integrate his cognitive changes to his emotional and behavioral response system so that positive personality and behavioral modifications may ensue (Murray & Jacobson, 1971). Within the context of the therapeutic relationship, the therapist utilizes his own person, warmth, empathy, and genuineness to facilitate the achievement of psychotherapeutic success (Murray, 1963; Rogers, 1961; Shoben, 1963; Wilson, Hannon, & Evans, 1968). These studies add support to Carkhuff's (1966) formulations that at the center of all fruitful interpersonal learning experiences is a primary core of facilitative interpersonal dimensions. In addition to this core are traditional and behavioral therapists with their own unique contributions (Vitalo, 1970).

As far back as 1951, Fiedler factor analyzed the ratings of psychotherapy tapes from ten therapists assessed by judges in terms of an array of 75 statements descriptive of therapeutic relationships. He found three characteristics that differentiated good from poor therapists: ability to understand the client's feelings, greater security in the therapeutic situation, and capacity to show interest and warmth. Rogers (1957) specified three basic variables as essential to therapeutic outcome: the therapist is congruent, or integrated, in the relationship; he has unconditional positive regard for his client, and

he possesses accurate empathy. These characteristics must be communicated to the client. More recent studies, summarized by Carkhuff and Berenson (1967), Truax and Carkhuff (1967), and Truax and Mitchell (1968; 1971) have shown that therapists who are highly empathetic, warm, and genuine bring about significant change in their clients.

Spontaneous and genuine responses on the part of the therapist may be conceptualized as serving as social reinforcement and as influencing the therapeutic context. Furthermore, the therapist's responses serve as discriminative cues for the client, conveying information as to the kind of responses he must give to gain the approval of, and elicit positive response from the therapist (Murray & Jacobson, 1971). The facilitative conditions provided by the effective therapist are similar to the kind of variables found important in modeling and reinforcement (Kagan, 1964).

Therefore, it can be assumed that social influence plays a crucial role in traditional psychotherapy, and that the benefit which ensues may be for the most part contingent on the application of social learning principles (Bandura, 1969a). Based on this assumption, psychotherapy can be conceptualized primarily as a set of social learning techniques, effecting change in the individual's beliefs about himself and others, that results in emotional and behavioral modifications. One may deduce that it would be faster and more effective to apply these principles intentionally and systematically (Bandura, 1971).

Modification programs based on social learning principles are designed to help people in the setting to which they have become accustomed, or in their natural environment (Roen, 1971). Moreover, such treatment

programs can be implemented by persons who have the most intensive contact with the subject and can, therefore, serve as powerful therapeutic agents. The potential influence of such persons derives from the fact that, since they are closely associated with the subjects, they exercise considerable control over the very conditions that regulate both deviant and desired behavior (Bandura, 1969a).

Many investigators hold the view that major progress will be achieved only by concentrating on the development of highly efficacious principles of behavior change and a methodology based on these principles that utilize the large pool of nonprofessionals and paraprofessionals who can be easily trained to implement programs under competent guidance and direction (Bandura, 1969a; Patterson, 1971). Truax and Lister (1970) found significant client benefits were realized when counselor aides were given direct responsibility for a case load under the supervision of a professional counselor. These findings that support personnel did effect constructive change in rehabilitation clients is consistent with previous research and findings on lay mental health counselors (Carkhuff & Truax, 1965) and untrained group psychotherapists (Poser, 1966). The systematic approach provided by learning theory is an effective means of training parents, teachers and institutional staff in behavior-modification techniques, using modeling, operant conditioning and principles of reinforcement.

According to social learning theory, modeling is one of the principal mechanisms for human learning and development. Bandura (1969a) notes that without the use of models, a large number of social responses could not be acquired by most humans. Human behavior is greatly

influenced not only by live models, but also by symbolic models. Symbolic models may be presented through oral or written instructions, or by means of pictorial or audio-visual devices.

In social learning theory, the phenomena ordinarily labeled as imitation and identification are designated as modeling (Bandura, 1970a). Identification has been most frequently differentiated from imitation in terms of outcome variables on the assumed basis that imitation involves the reproduction of discrete responses whereas identification refers to the adoption of diverse patterns of behavior (Kohlberg, 1963), symbolic representations of the model (Emmerich, 1959), or similar meaning systems (Lazowick, 1955).

Some reinforcement theorists assume that imitation is an essential antecedent condition for identification to occur, while others advance the view that identification leads to imitation (Bandura, 1970a). Results of numerous studies reviewed by Bandura (1969a) indicate that acquisition of isolated matching responses and of entire behavioral repertoires are influenced by the same determinants. Moreover, retention and delayed reproduction of even discrete matching responses require symbolic representations of previously modeled events. There also appears to be little cause to assume that the principles and processes involved in the acquisition of modeled behaviors that are later executed in the presence of the models are different from those performed in their absence (Bandura, 1970a).

Bandura, Blanchard and Ritter (1969) have demonstrated that when observers are exposed to the same modeling stimuli they simultaneously experience similar changes in specific behaviors, in emotional

responsiveness, in evaluation of objects involved in the modeled activities, and in self-evaluation. There is reason to assume that essentially the same learning process is involved regardless of the generality of what is learned, of the models from whom the response patterns are acquired, and of the stimulus conditions under which imitative behavior is later reproduced. Therefore, according to Bandura (1969a), unless it can be demonstrated that imitation and identification are governed by separate variables, there is little reason to consider a dichotomy.

Various studies have investigated the effects of systematically preparing clients for psychotherapy (Doster, 1972; Marlatt, 1970; Myrick, 1969). It has been found that modeling can significantly enhance the verbal participation of the client in individual and group counseling. In the present decade, the emphasis in modeling research centers around the refinement of modeling procedures in order to gain maximal client performance. One of the variables that influences the efficiency of a modeling procedure is the type of reinforcement administered during and prior to the interview. Reinforcement can be presented either vicariously through the model or directly to the client. The reinforcement variable in counseling has received only minimal attention in counseling research.

Theoretical Components of Social Learning and Pertinent Research

The present literature review focuses primarily upon modeling from

a Bandura observational learning perspective and upon the application of modeling procedures to counseling research.

Differential Effects of Modeling Influence

According to Bandura's (1971) social learning theory, models have three general effects on the observer. First, new patterns of behavior can be acquired by observing the performance of others, that were not part of the observer's behavioral repertoire. This observational learning effect or modeling effect is most clearly demonstrated when the models perform novel responses that the observers have not yet learned (Bandura, 1969a, 1970a, 1971). A second major function of modeling influences is to strengthen or weaken inhibitory responses, that the observer already has acquired from others (Bandura, 1970a). Inhibitory effects take place when the subjects show either decrements in the modeled class of behavior or a general reduction of responsiveness resulting from observing the model's behavior terminate in punishing consequences. When models respond punitively toward their own behavior, comparable reductions in performance have been demonstrated (Bandura, 1970a). Disinhibitory effects occur when observers perform behavior, or increase responses of behavior previously inhibited, after watching models engage in threatening or prohibited activities without negative consequences (Bandura, 1970b; 1971). Finally, a response facilitating effect is evident when the observation of a model serves as a cue for releasing similar nonverbal responses. For example, people often clap when they view others applauding (Bandura, 1969a).

Subsystems Governing Observational Learning

Bandura stresses the distinction between the acquisition of modeled responses and the performance of modeled responses. According to Bandura (1969a), when an observer watches a model engage in a sequence of behaviors, he acquires symbolic mediators which possess cue properties that subsequently elicit imitative responses some time after the exposure to the model's behavior. The performance of modeling responses is primarily determined by incentive variables which include positive and negative reinforcement. In Bandura's present formulation, stimulus contiguity is a necessary but not a sufficient process for the acquisition and performance of modeled responses. Modeling processes involve four interrelated subprocesses that determine observational learning. These are: attentional processes, retention processes, motoric reproduction processes, and reinforcement processes.

Attention-controlling variables have an influence on which modeled stimuli are ignored and which are observed. The simple exposure of an observer to modeling stimuli does not always result in the observer attending to the most distinctive cues. If the observer does not attend to and differentiate the relevant features of the model's response sequence, he will not acquire the modeled behavior. Therefore, discriminative observation is one of the necessary conditions for the acquisition of modeled behavior (Bandura, 1969a).

Modeling research has demonstrated that the distinctiveness, prevalence, functional value, and complexity of the modeling stimuli significantly influence attending behavior (Bandura, 1969a). In addition, past reinforcement, arousal level, perceptual set, motivation, and the

sensory capacities of the observer are basic determinants in the attentional processes. Other characteristics such as age, sex (Bandura, Ross, & Ross, 1963a), social power (Bandura, Ross & Ross, 1963b; Mischel & Grusec, 1966), ethnic status (Epstein, 1966) and interpersonal attractiveness (Bandura & Huston, 1961; Grusec & Mischel, 1966) also effect the degree of attention a model receives.

Retention processes are governed by a number of variables, among which rehearsal operations are very important, for they serve to stabilize and strengthen acquired responses (Bandura, 1969a). Both covert and overt practice and rehearsal of modeled behavior may enhance learning (Margolius & Sheffield, 1961, Michael & Maccoby, 1961).

These processes are of special interest since children acquire numerous behavior patterns through modeling early in life, retain them, and perform them at a later and more socially appropriate time. In Bandura's system, modeling involves imaginal and verbal representations which develop by a contiguity learning process. An imaginal representation is a mental picture of absent physical stimuli. When a particular person is consistently associated with certain events, even reference to his name can produce an imaginal representation. In addition, references to familiar objects, places, and activities can also result in images being formed. A verbal representation is simply a label or code for observed events. Verbal representations are efficient because they are able to contain a large amount of information in an easily stored form.

The influential role of symbolic representation in modeling is demonstrated in a study by Bandura, Grusec and Menlove (1966). Children

watching modeled behavior on film were told to either watch attentively, code the responses into verbal equivalents, or count rapidly. Children who made verbal codes produced more imitative responses than those who viewed the film passively. The latter group, in turn, showed a greater level of responding than the group engaged in counting. Gerst (1971) in a study, provided further evidence that symbolic coding operations play a major role in observational learning. College students observed a filmed model conduct a complex series of motor responses. The students were instructed to code the responses into either summary labels, concrete verbal descriptions; or vivid images. Control subjects were prevented from generating any symbolic codes. All three coding systems enhanced the acquisition and retention of modeled behavior compared to the performance of the control group.

Motoric reproduction process is the third major component of modeling phenomena. It is concerned with the symbolic representations of modeled patterns to guide overt performances. Sometimes modeled behavior patterns have been learned and retained in representational form but cannot be performed due to physical or other limitations. Also when highly coordinated motor skills, and performances that contain many motor components are involved, some overt practice is necessary in addition to a skilled model (Bandura, 1971).

Incentive and motivational processes are the crucial component function of the modeling processes. A subject may acquire, retain, and possess the capability to perform modeled responses, yet not execute them if unfavorable incentive conditions are present (Bandura, 1971). In such cases, when rewards are introduced, response acquisition is

manifested in behavior (Bandura, 1969b). Reinforcement variables not only regulate the performance of modeled responses but they also influence observational learning by controlling the types of modeling cues to which an observer will attend. This and other issues related to the role of reinforcement in modeling are examined in the following sections.

The Role of Reinforcement

A main issue in theoretical and research analyses of modeling is whether reinforcement is necessary for modeling responses to be learned. Before viewing Bandura's position and evidence on this issue, the positions and paradigms of the major reinforcement theorists are reviewed.

Reinforcement theorists, Miller and Dollard (1941) advanced the view that modeling could occur only through positive direct reinforcement of imitative behavior. They demonstrated "matched-dependent" behavior through a two-choice discrimination paradigm. A social learning theorist would argue that Miller and Dollard's research simply demonstrated a special case of discrimination place-learning. In the Miller and Dollard experiments, the matching responses are part of the subject's response repertoire prior to the task. Therefore, the Miller and Dollard framework can account for the performance of previously learned responses but does not adequately explain the acquisition of modeling responses.

The Skinner (1953) analysis of modeling is highly similar to that of Miller and Dollard (1941) and Baer and Sherman (1964). In the Skinnerian approach to imitative learning, a subject matches his own stimulus pattern to modeling cues through the process of differential

reinforcement. Skinner also indicates that direct reinforcement is a necessary condition for modeling behavior to be learned.

According to Gewirtz (1969), modeling is due to direct reinforcement of the subject's matching of the model's behavior. The first imitative responses occur by means of shaping, or prompting, or even by chance. Once these responses occur, direct reinforcement strengthens and maintains them. By this repeated process, a class of functionally equivalent behavior is acquired by intermittent direct reinforcement. Gewirtz refers to this simple learning model as "generalized imitation". Gewirtz maintains that the generalized imitation paradigm can most parsimoniously account for childhood identification, observational learning, and vicarious reinforcement.

For Gewirtz, modeling is simply one type of stimulus control over responses. He strongly argues that direct reinforcement is necessary for the establishment of modeling. When imitative responses occur without direct reinforcement, Gewirtz insists that somewhere in the organism's past history he was reinforced for that imitative behavior. Furthermore, Gewirtz maintains that any reward for a child's social achievements is also a reinforcement for modeling.

In summary, the reinforcement theorists maintain that direct reinforcement is a necessary condition in the learning of imitative behavior.

Bandura's position, in contrast to the reinforcement theorists, views reinforcement as a facilitory condition rather than a necessary condition. When discussing the role of reinforcement in modeling, Bandura states that one must distinguish between response acquisition

and performance. Since response acquisition and performance are determined by different variables, this distinction seems necessary in all analyses of modeling processes. Now this issue is rephrased to whether reinforcement is a necessary condition for modeling responses to be acquired. If reinforcement is a necessary variable, then observers trained under a nonreinforcement condition should not produce significant modeling behavior. Under a nonreinforcement condition, Flander (1968) obtained a significant level of modeling responses. In addition, Bandura et al. (1961), Kanfer and Marston (1963), and Berger (1966) found greater modeling behavior under a straight modeling condition without any reinforcement, than under a no model condition (controls). In a series of behavior modification studies, Bandura et al. (1967), Geer and Turteltaub (1967), and Bandura and Menlove (1968) obtained a greater response from snake and dog phobic children who were in the modeling group without reinforcement, than from controls who did not observe a model.

Since the above evidence indicates that modeling behavior can be acquired without reinforcement, Bandura would conclude that reinforcement is not absolutely necessary in the acquisition of modeling responses. Gewirtz, on the contrary, would argue that somewhere in the subject's past reinforcement history he was directly reinforced for the imitative response. Even if Gewirtz's interpretation of reinforcement is correct, one can still conclude that "contemporaneous reinforcement" is not a necessary condition for the acquisition of modeling responses.

Bandura (1971a) theorizes that reinforcement facilitates acquisition by influencing the attentional, organizational, and rehearsal processes.

In the Bandura system, response consequence is not the only variable that has selective control over attention. Anticipation of reinforcement also exercises selective control over attention. In addition, anticipation of reinforcement facilitates modeling by motivating an observer to code, organize, and rehearse. The motivational properties of anticipated reinforcement are well documented in human and infrahuman research (Amsel, 1958; Potter, 1966; Ryan et al., 1968; Watson, 1970).

Social learning and reinforcement theorists agree that the performance of modeling responses is strongly regulated by its consequences. In a study in which children observed a filmed model exhibit novel aggressive responses, reinforcement influenced the performance but not the acquisition of imitative responses (Bandura, 1965). In this experiment, children observed a model being rewarded, punished, or having experienced no response consequences. Children who observed the reinforcement and no consequence condition modeled a greater number of responses than children who witnessed the punishment condition. Furthermore, boys imitated the aggressive responses significantly more than the girl observers. After this first testing, all three groups of children were offered highly attractive rewards contingent upon their performance of the original aggressive responses. As a result of this new incentive, all previous performance differences were eliminated. This finding indicates that the acquisition of the modeled responses was not significantly different across the three reinforcement conditions. In other words, only the performance was a function of the reinforcement.

Further evidence for the influence of reinforcement in the performance of modeling responses is found in a series of experiments by Lanzetta and Kanareff (1969b). The strength of the incentive condition also has a direct effect on modeling performance. Hicks (1965), Bandura (1965), and Mischel and Grusec (1966) found a greater amount of modeling under maximal incentive conditions than under minimal or moderate conditions.

Incentives to Perform Modeled Behaviors

How can the counselor build in incentives during the modeling presentation which may motivate the observer to perform the same responses? A variety of experimental studies reveal that when a model's behavior is rewarded, or when the consequences of his actions are not aversive, the probability that the observer will match these behaviors is significantly increased. Observation of a model who is punished for his performance, on the other hand, usually produces a decrease in imitation on the part of the observer.

Observation of the reinforcing consequences of the model's behavior by the observer involves the process of vicarious reinforcement, as distinguished from direct reinforcement in which the observer is reinforced for the performance of an imitative response.

Direct Reinforcement

Various investigations have shown that direct reinforcement to the observer increases modeling performance. Over a wide range of

tasks, observers have exhibited increased imitative behavior to obtain reinforcement such as candy (Miller & Dollard, 1941), toys (Bandura, 1965a), the word "good" (Baer & Sherman, 1964), tokens (Clark, 1965), knowledge of correct task outcome and knowledge of results plus tokens (Lanzetta & Kanareff, 1959).

A main strength of direct reinforcement is its ability to maintain effortful behavior over an extended period of time. Lewis and Duncan (1958) have demonstrated an increased resistance to extinction of imitative responses with the use of partial direct reinforcement.

Vicarious Reinforcement

Some theorists propose that performance of observationally learned behaviors are largely contingent on reinforcing consequences of the model's behavior. Subjects who observe models punished are less likely to imitate their behavior in comparison to models who were rewarded.

In terms of the effects of vicarious reinforcement, Bandura reports that vicarious reinforcement effects are governed by such variables as the percentage (Kanfer, 1965; Marston and Kanfer, 1963), intermittancy (Rosenbaum and Bruning, 1966), and magnitude (Bruning, 1965) of reward in essentially the same manner as when they are applied directly to a performing subject (Bandura, 1969b, p. 237). There are various psychological effects created by observation of others experiencing punishing or rewarding consequences. The informational, stimulus enhancement, incentive-motivational, and vicarious emotional-conditioning effects are summarized as follows:

1. Informational effects. Through the observation of others, one can generate and confirm hypotheses about the type and strength of responses needed to acquire a reward or prevent a punishment. The informational or discriminative function seems to be particularly influential when ambiguity exists as to which responses are socially acceptable. Furthermore, informational effects are very strong when the observer assumes that the model's contingencies are applicable to himself (Bandura, 1969b).

2. Stimulus enhancement effects. Outside of the laboratory, modeled behavior that is reinforced on one occasion might not be reinforced under different circumstances. Reinforcement is often contingent upon the location or social setting in which the modeled behavior is expressed and upon the people towards whom the behavior is directed. Vicarious reinforcement influences the distinctiveness of relevant stimuli by focusing the observer's attention upon them. This stimulus enhancement function aids the observer in identifying situations in which the modeled responses are not only acceptable but also reinforceable (Bandura, 1971b).

3. Incentive-motivational effects. It is well documented in the frustration-effect literature that the anticipation of reward or punishment has a strong incentive-motivational effect on human behavior. An anticipation of reward or punishment can be developed through vicarious reinforcement, without the aid of direct reinforcement. Several studies have shown that after anticipation of reinforcement is established, variations in the magnitude and percentage of vicarious reinforcement

influence the persistence, speed, and intensity of modeling responses (Bandura, 1968; Rosenbaum and Bruning, 1966; and Hamilton, 1970). In addition, Bandura (1965) and Marlatt et al. (1970) have found that the removal of anticipated punishment augments modeling responses in observers as much as observers viewing models rewarded.

4. Vicarious emotional-conditioning effects. In both animals and humans, observers can be emotionally aroused by simply watching a model being rewarded or punished. Postural, facial, and verbal expressions in others can produce or extinguish fear in an observer (Bandura & Rosenthal, 1966; Bandura & Menlove, 1968; and Blanchard, 1970). Bandura (1969a) explains vicarious emotional-conditioning in the following manner. After a stimulus and aversive experience are paired, the stimulus elicits the response by activating emotion arousing thoughts. Reinforcement theorists would argue that emotional responses are automatically elicited by the stimuli and not cognitively evoked.

Vicarious vs. Direct Reinforcement

Various studies have compared the relative effectiveness of vicarious with direct reinforcement. In a verbal learning task, Kanfer and Marston (1963) found vicarious reinforcement to be as effective as direct reinforcement. Vicarious reinforcement was manipulated by having the observer listen to the experimenter saying "good" when a taped subject produced the correct response.

A number of investigations have found a greater response rate and fewer errors under a vicarious reinforcement than under direct reinforcement

(Hillix & Marx, 1960; Berger, 1961; Rosenbaum & Hewitt, 1966; and Rosenbaum, 1967). In these studies, direct reinforcement and overt performance produced interfering responses in the various discrimination and retention tasks. One form of the interference is that performers often become highly involved in the responses. As a result, performers are less able to figure out the response-reinforcement contingencies in comparison to the observers (Kanfer, 1965). Furthermore, direct reinforcement can be distracting and therefore hinder the concentration of the performer. The finding of weaker performance under direct reinforcement than under vicarious reinforcement seems to be due to these interfering responses associated with direct reward and overt performance. Bandura (1971b) concludes that vicarious reinforcement would probably be less effective than direct reinforcement when the acquisition of a new intricate skill is required.

Since vicarious and direct reinforcement usually occur in combination outside of the laboratory, the superiority of one over the other is not the only issue. Of equal importance are studies investigating the interaction effects of direct and vicarious reinforcement. Ditrichs, Simon and Greene (1967) and Marlatt (1968) have found that the response rate under direct reinforcement was significantly influenced by previous vicarious reinforcement. This finding can be partly attributed to prior vicarious reinforcement supplying a standard for judging the value of the direct reinforcement. In the previously mentioned Kanfer and Marston study, a combination of direct and vicarious reinforcement resulted in a higher response rate and slower extinction rate than either form of reinforcement alone. This discussion points out the necessity of

considering vicarious reinforcement effects when investigating the function of direct reinforcement in social learning situations.

Modification of Verbal Behavior Through Modeling Techniques

The implication for the use of modeling as an effective therapeutic procedure are considerable because it is a flexible tool with the possibility for use in a variety of situations and settings (Bandura, 1969; Mischel, 1971; Sarason and Ganzer, 1969). As a therapeutic tool, modeling procedures can be used to weaken or remove inhibitory responses in the observer, to aid in teaching new behavior and to provide a means of learning inhibitory controls (Heller, 1969).

There is no doubt that the verbalizations of others, either in spoken or written form, exert a profound influence on our words and actions. This section reviews the literature specifically concerned with the effect of modeling on verbal behavior in counseling and its use in correctional rehabilitation. In the context of counseling and behavior change, words are the basic token of information exchange between the client and the counselor. The client must first use words in order to express the nature of his problem to the counselor, often during an initial intake or assessment interview. The counselor and client also interact through the course of treatment, interchanging feelings and information through the medium of verbal expression.

In the initial discussion many clients experience considerable difficulty putting their problems and feelings into words which are useful or acceptable to the therapist. This is especially true of

inmates in prisons during their initial interview sessions. For one thing, the client may experience anxiety, revealing his or her deepest secrets and personal concerns to a relative stranger. Many clients who appear reticent or defensive in discussing their problems with a counselor may lack the necessary verbal skills to communicate this information--modeling may help these individuals learn a general set or verbal style which will help them be more self-disclosing.

Modeling has been employed in pretherapy training programs to convey information designed to establish realistic expectations of improvement, to instruct clients in how to participate in therapy and to explain the counselor's behavior (Holhn-Saric, Frank, Imber, Nash, Stone, and Battle, 1964; Truax, Wargo, and Volksdorf, 1970). Information can, of course, be communicated in many ways. Jourard (1969) and Powell (1968) have demonstrated the importance of the context of the counselor's self-disclosure for the way in which a client describes himself. Evaluation of information transmitted through pretherapy models suggests that clients develop better relationships with their counselors and show greater symptomatic improvement than do no-information controls. Cozby (1973) defined self-disclosure as any information about oneself that Person A communicates verbally to Person B. Gitter and Black (1976) have made clear the distinction between "self-disclosing" and "self-revealing", the latter being truthful statements about self and the former being verbal behavior which seems to indicate something about a person but may be "gilded". Investigations by Jourard (1971) have also shown a variety of social, cultural, and dispositional variables influence self-disclosure.

Whalen (1969) investigated the relative efficacy of modeling and instructional procedures in increasing interpersonal openness among group members. Results indicated that a combination of a video model and direct instructions seemed to facilitate self-disclosure and positive feedback, and inhibited impersonal discussion. When presented alone, neither the instructions nor the model could produce these results.

Truax, Wargo, Carkhuff, Kodman, and Moles (1966), Truax, Shapiro, and Wargo (1968) and Truax and Wargo (1969) have made use of imitative learning in group therapy with juvenile offenders. By exposing groups about to begin therapy to a pre-interview modeling audiotape of how clients often explore their own feelings and problems, it was hoped that the subjects could vicariously learn what is expected of them in the group and that they would benefit from such a group experience. Results, in the form of changes in self concept and MMPI profiles, suggest that the vicarious experience of group therapy did have positive effects. An important finding of the Truax studies was that outcome in group therapy was found to be related to level of self-disclosure. Clients who appeared to display a high level of self-disclosure showed improvement significantly greater than the control clients.

There are also a number of studies that involve subject or client exposure to a model before entering an individual interview setting.

Doster and McAllister (1973) investigated the influence of model status on self-disclosure. Model status was manipulated by identifying the model on an audiotape as a peer subject or as an experienced clinical intern. Both models exhibited a high level of interview appropriate self-disclosure. The group which witnessed the clinical

intern model appeared to elicit greater self-disclosure during the interview than the group which witnessed the peer subject model. Furthermore, the experimental groups, regardless of model status, produced a greater level of self-disclosure than the control group.

It was found that exposure to a pre-interview model resulted in a greater frequency of self-reference statements during an initial counseling session (Myrick, 1969). It was also demonstrated by Myrick that an audiotape model was more effective in increasing self-reference than a videotape model. It seems that video models can produce too many or competing stimuli which distract the observer from attending to the desired verbal behavior.

Another main dependent variable in modeling research is often problem admission, because of its relatively high degree of scoring reliability. Using the problem admission variable Marlatt (1971) investigated the relationship of task ambiguity to modeling behavior. It was predicted that modeling would have a stronger influence on interview behavior if the model was followed by ambiguous instructions rather than structured (topic oriented) instructions. As predicted, the group that received a model and ambiguous instructions displayed greater problem admission than the group that received a model and unambiguous instructions. Marlatt maintains that in an unstructured situation such as an initial counseling interview, clients are less likely to utilize pre-interview modeling cues if explicit instructions are also presented.

The type of reinforcement given to the model and the observer has been found to influence the frequency of problem statements. Jacobson, Johnson, Marlatt, and Morrice (1970) demonstrated that observers exposed

to a model receiving either positive or neutral reinforcement would produce greater problem admission than observers exposed to a model receiving negative feedback. An unexpected result was that there was no difference in problem admission scores between the positive reinforcement group and the neutral reinforcement group. The instructions given prior to the interview could possibly have been a confounding variable in this study. The subjects were directly instructed to describe themselves in terms of what they thought and felt about themselves. The model, however, admitted a series of personal problems which could be interpreted by the observer as being different from the instructions to describe oneself.

Marlatt (1970) did a comparison of vicarious reinforcement and direct reinforcement on problem admission in an interview setting. College students were assigned to one of three vicarious reinforcement modeling groups:

1) exposure to a model who receives positive reinforcement for problem admission
2) exposure to a model who receives negative reinforcement
3) exposure to a model who receives neutral reinforcement (no reinforcement).

A control group consisted of subjects who were not exposed to a pre-interview model. Each subject was then assigned to one of three direct reinforcement interview conditions in which the counselor gives either positive, negative, or neutral reinforcement directly to the subject for his problem statements. Marlatt predicted that the highest level of problem admission would be produced by the group that received

positive vicarious reinforcement during the modeling phase and neutral reinforcement during the interview. As predicted, the positive vicarious reinforcement-neutral direct reinforcement group was superior to the other reinforcement groups and to the control group. The major finding of this study was that vicarious reinforcement exerted stronger control over problem admission than did direct reinforcement. The comparative superiority of vicarious reinforcement was interpreted by Marlatt as follows: in an ambiguous task, direct reinforcement seems to interfere with the acquisition and retention of the reinforcement contingencies and may also disrupt the subject's general learning set. In contrast, the passive observation of the response-consequences to a model is the optimum condition for the learning of reinforcement contingencies.

It may be asked why direct instructions to the client could not be used to bring about desired changes in verbal behavior. It is often the case, however, that instructions alone are insufficient sources of information (Marlatt, 1972). Instructions usually contain rules of the "do" and "don't do" variety, from which the listener must deduce specific examples which conform to the general rule. For example, if a counselor tells his client to "just tell me about your feelings in this regard," the client may have some difficulty in interpreting the rule to limit his discussion to feelings. How are feelings defined? What makes the difference between an opinion and a feeling? In such a case, the presentation of a model who illustrates the meaning of this rule by elaborating on specific examples of his own feelings may provide the needed information. In addition, if the model sequence involves an

interview between a client and a counselor, in the interview the counselor can reinforce the model's self-disclosure, thus providing a source of positive vicarious reinforcement for the observer. Fears of being ridiculed or scorned for admitting certain feelings, personal problems, or weaknesses may be disinhibited as a result.

Going on the basic premise that a good deal of juvenile delinquency is a reflection of inadequate learning experiences, Sarason (1968) and Sarason and Ganzer (1973) investigated the effectiveness of modeling procedures, compared to traditional group discussion approaches with institutionalized male delinquents.

The groups met four times a week for a one-month period, with each session devoted to a particular adjustment problem. Sessions included such topics as: how to apply for a new job, how to resist social pressure from peers to engage in antisocial behaviors, and how to delay immediate sources of gratification in order to obtain more valued goals in the future. In the modeling groups, consisting of four or five youths, two models (graduate students in psychology) acted out a script which demonstrated appropriate behavior in these problem situations. Following the modeling sequence, the observers were called upon to summarize and explain the main points of what they had just observed. Each youth then enacted the same scene with either another boy or a model as a partner. In the example which follows, the boys are exposed to a modeled interaction in which Tom, a newly paroled youth, is pressured to go out drinking (Sarason & Ganzer, 1971).

(George knocks on the door and Tom answers)

Tom: Hi, George, how're you doing?

George: Hey, Man, we're glad to see you back. Gotta celebrate your return. We got a couple cases of beer in the car. Come on, we're gonna have a party.

Tom: Oh, you know I got to stay clean.

George: What do you mean, you gotta stay clean? Come on, this party was planned just for you. We even got a date with Debbie lined up for you. It won't hurt just this once.

Tom: Well, you know I'm on parole. I can't go drinking...I might get caught and if I get caught now, I'll really get screwed.

George: Oh, Man, we won't get caught. We never get caught doing anything like that.

Tom: Well, maybe you guys have never gotten caught, but the night I got in trouble I was out drinking and ended up stealing a car. (pause) You know, I just got back.

George: Look, Man, you don't have to drink. Just come to the party and have a little fun. What are we gonna tell Debbie anyway?

Tom: You know being there is the same as drinking to the fuzz. And Debbie won't have any trouble finding someone else.

George: You mean you don't want to go out with Debbie?

Tom: Not to this party. Maybe to a show sometime or something like that.

George: Boy, I sure don't understand you. You have sure changed since you got back from that place. You trying to kiss us off?

Tom: No, that's not it, Man. If you want to do something else where we wouldn't get into trouble, (pause) like go to a show, the dance or something, that would be okay but... well...I know some guys who were in there for a second or third time and they don't get the breaks anymore. You know what it is to be on parole.

George: Okay, look, let's just have one quick beer now out in the car, okay? For old times sake.

Tom: No, Man, I know where that leads. Then it would be just one more and then pretty soon we'll be drunk. I can't do it, Man.

George: Jeez! What is the matter with you, Man? Just one beer?

Tom: Maybe another night. My old man expects me to help him work on the boat tonight anyway. I'll be in trouble with him if I take off. Look, I'm sorry, maybe some other time, okay?

George: Okay. Can't be helped, I guess. Look, we'll be at John's place. Come on over later if you can.

Tom: Sure. See you tomorrow, anyway.

The treatment method which Sarason described was found to be highly effective as assessed by a variety of attitudinal and behavioral adjustment measures. This method can be applied to a variety of cases in which the therapist desires to train clients to perform new behaviors or acquire new social skills.

Trust Within the Perspective of Social Learning Theory

The development of trust is important for an effective counseling relationship. Strong (1968) and Strong and Schmidt (1970) argued that the client's trust in the counselor affects his acceptance of the counselor's influence. Gibb (1964) states that trust is a precondition for the flow of feelings, formation of goals, and the implementation of influence mechanisms in relationships such as counseling. The results of a study by Friedlander (1970) imply that the trust level between the counselor and the client is a key predictor of success in counseling. Deutsch (1958) indicated that risk-taking in self-disclosure is a step toward trust.

Choosing to self-disclose is only an initial and partial step toward trust. The person's self-disclosures must be responded to by the other. Johnson and Noonan (1972) in their study stated that when one engages in self-disclosure, trust will be built to the extent that the other expresses reinforcement for one and one's statements, and also is willing to self-disclose.

The tendency for self-disclosure to be reciprocal is one of the most consistent findings of laboratory studies in this area. The more intimately an experimenter, interviewer, or fellow subject reveals himself to the subject, the more intimately the subject tends to reveal himself in turn (Davis & Skinner, 1974; Derlega, Harris, & Chaikin, 1973; Jourard & Friedman, 1970; McAllister & Kiesler, 1975; Sermat & Smyth, 1973; Worthy, Gary & Kahn, 1969). Although, such reciprocity seems to be prevalent, its underlying mechanisms are not well understood. Rubin (1973, 1974) has suggested that the reciprocity effect may be

produced by either or both of two different processes, called modeling and trust. Modeling refers to the matching of the intimacy level of one's own response to the response of another person, in an attempt to respond appropriately to situational demands. The first person's revelation serves as a cue to the second person concerning the degree of intimacy that is called for in a particular sort of situation, and the second person uses this cue as a guide to his own disclosure. Trust refers to the reciprocation of another person's self-disclosure as a reflection and expression of one's personal orientation toward him. The processes of modeling and trust may often operate simultaneously (Rubin, 1975). Colson (1968) in a study indicated that positive accepting reactions do tend to increase the frequency and depth of self-disclosure. On the basis of these studies it was found that a person will trust the other more when the other reinforces a person's self-disclosures in a positive manner than when he responds with rejection.

The failure to trust others, particularly representatives of society, teachers, law officers and community leaders, has frequently been cited as an important determinant in delinquency (Redl & Wineman, 1951).

Rotter (1967) observed that the expectancy that others can be believed must be an important variable in any social learning situation. Much of the formal and informal learning that human beings acquire is that of being provided with information from other people, either promises of reinforcements to come, or merely statements of presumed fact. Implicit in all these situations is the problem of whether or not to believe the other person. On this basis, one can hypothesize a generalized expectancy of trust or distrust.

In social learning theory, the potential of the occurrence of a behavior is considered to be a function of the expectancy that, that behavior will lead to a particular reinforcement or reinforcements, and the value of these reinforcements in a given situation.

It is a natural implication of social learning theory that experiences of promised negative or positive reinforcement occurring would vary for different individuals and that, consequently, people would develop different expectancies that such reinforcements would occur when promised by other people. It is also natural to expect to some degree, that such expectancies that promises of other social agents will be kept would generalize from one social agent to another. That is, individuals would differ in a generalized expectancy that the oral or written statements of other people can be relied upon. The development of such a generalized attitude may be learned directly from the behavior of parents, teachers, peers, etc., and also from verbal statements regarding others made by significant people in a person's life.

Summary

Bandura's observational learning theory of modeling and the application of modeling procedures in counseling research have been reviewed. A prominent feature of social learning theory is the distinguishing characteristic between acquisition and performance process. Social learning theory asserts that observers acquire representations of modeled events rather than specific stimulus response associations. The performance of modeled responses is primarily governed by reinforcement which

may be externally applied, vicariously experienced, or self-administered. Furthermore, social learning theorists conceptualize modeling as a multi-process phenomenon which encompasses attention, retention, motor reproduction, incentive and motivational processes.

Direct reinforcement is said, by the reinforcement theorists, to be a necessary condition in the learning of modeled behavior. In contrast, Bandura views reinforcement as a facilitory rather than a necessary condition. He postulates that reinforcement facilitates acquisition through its effects on attentional, organizational, and rehearsal processes. Research indicates that vicarious reinforcement is effective in the establishment of a wide range of imitative responses. Several investigations have found that vicarious reinforcement produced greater performance than direct reinforcement. This finding was explained in terms of interfering responses associated with direct reward and overt performance. It has been pointed out by modeling research that the response rate under direct reinforcement was often influenced by previous vicarious reinforcement.

In this literature review, it has also been shown that modeling techniques have been used in counseling settings, including correctional institutions, with results that indicate it is a flexible and facilitative method. In individual and group counseling sessions, pre-interview modeling procedures influenced the verbal behavior of the observer on dimensions such as self-disclosure, problem admission, and interpersonal openness. Modeling research suggests that interview verbal behavior is a function of the type of reinforcement administered to the client.

Finally, interpersonal trust, defined as a generalized expectancy that the verbal statements of others can be relied upon (Rotter, 1971), appears potentially to be a fruitful variable for investigating its effect on self-disclosure in an interview.

The Present Study

The current research investigation was principally designed to help establish an effective relationship between a counselor and his client within a correctional rehabilitation institution. In a counseling interview situation with prison inmates, the effects of modeling + vicarious and modeling + direct reinforcement, and modeling alone, were examined on the modeled behavior of self-disclosure and trust. Self-disclosure is used here to mean any information about oneself communicated verbally to another. An important implication of the study was the potential for the use of modeling techniques by institutional staff.

It had been noted that anti-social behavior patterns were a product of the learning experiences of the offender and that counseling could be effective within the context of a learning situation in which prosocial responses and behavior patterns, and more efficacious problem solving behavior can be stimulated and developed.

In this study, modeling + reinforcement--vicarious and direct- and modeling alone were the independent variables. The dependent variables were the level of self-disclosure and trust. The reinforcement was administered during the preinterview model segment. There was no reinforcement administered in the interview.

The study used a pretest-posttest control group design (Campbell and Stanley, 1966) and randomized subjects to treatments. The factorial designs employed consisted of a 4 (treatments) x 3 (interviewers) and 4 (treatments) x 3 (interviewers) x 3 (time segments).

The purpose of the present investigation was to critically examine and contrast modeling and modeling + reinforcement approaches to manipulating levels of self-disclosure and trust among the prison inmates. Specific attention was given to the role of modeling + vicarious and modeling + direct reinforcement, with trust explored as a subsidiary variable. The design of the study involved the inclusion of two modeling + reinforcement treatment conditions, one modeling alone treatment and the control condition. The modeling alone involved the inmate's observation of a model in interaction with a classification officer. The modeling + vicarious reinforcement condition was identical to the latter, with the exception that the model received praise for predefined behavior (verbalizations). In the modeling + direct reinforcement condition, the inmate was given non-tangible reinforcement, i.e., praise, for predefined behavior. The predefined behavior referred specifically to verbalizations which involved self-disclosure of the type operationally defined in the method section. A control condition involved a short interview with the inmate focused upon the same subject matter format employed in the three experimental conditions.

The Specific Hypotheses to be Tested

Hypothesis 1: Subjects in the modeling + vicarious reinforcement, modeling + direct reinforcement, and modeling alone

conditions will show significantly more self-disclosure and trust than subjects in the control condition.

Hypothesis 2: Subjects in the modeling + vicarious reinforcement condition will show significantly more self-disclosure and trust than subjects in the modeling + direct reinforcement condition.

Hypothesis 3: Subjects in the modeling + vicarious reinforcement and modeling + direct reinforcement conditions will show significantly more self-disclosure and trust than subjects in the modeling alone condition.

CHAPTER II

EXPERIMENTAL METHOD

Subjects

One hundred inmates were selected from the population within a Federal Medium Security Institution for Adult Offenders. They were selected from the four living units within the institution and were (1) newly admitted inmates, (2) from 18 to 25 years of age, and (3) Caucasian males.

The Self-Disclosure Sentence Completion Blank and The Interpersonal Trust Scale were group administered prior to and independent of the experiment proper. The 60 subjects selected for participation in this study were randomly selected from the pretested group and were randomly assigned to one of the four treatment conditions. There was a total of 15 subjects in each treatment condition.

Interviewers

The experimenter was the Assistant Director of Classification, and three male classification officers were the interviewers. All were at the graduate level and had work experience in the correctional field ranging from two to five years. The interviewers were not informed as to the exact nature of the investigation until the experiment had been completed.

Prior to the commencement of the experiment, the experimenter met with the interviewers for a training session. At this session,

interviewer instructions were reviewed and practice interviews were conducted. The interviewers began each interview with a general introduction that asked the inmate to share his personal beliefs, feelings, and problems with the interviewer. The interviewers were instructed not to use interpretation, defensiveness or self-disclosure. They were instructed not to go beyond the boundaries of the study in eliciting further information from the subjects, nor to administer either verbal reinforcement or nonverbal reinforcement to the subjects. Before initiating the experiment proper, the interviewers were rated on the Hill Interaction Matrix and were found to be consistent at the assertive/personal level.

Treatment Conditions

This study consisted of three treatment conditions and one control condition. The audiotapes for the treatment conditions consisted of two graduate students role playing the classification officer/inmate segments. The tapes ranged in time from 12 to 15 minutes.

Modeling + Vicarious Reinforcement Treatment

The vicarious reinforcement was an audiotape model, presenting supposedly a peer inmate exhibiting a high level of self-disclosure, without signs of defensive behavior. The transcript of the taped disclosure examples was adopted from a study by Doster (1972) and Sarason and Ganzer (1973) and was rated as being at the extreme personal end on a superficial-personal disclosure dimension (see Appendix I for transcript segments). After the model exhibited the first part of

Segment A self-disclosure behavior on the tape, the interviewer administered the following taped verbal reinforcement to the model.

> You are doing a fine job of talking about your own thoughts and feelings. You're not evading or backing away from discussing yourself with me.

At the end of the second part of Segment A, the interviewer administered the following taped verbal reinforcement to the model.

> By revealing yourself in this open manner, I can really understand what you are feeling and also, it helps you to learn about yourself.

Next, the model exhibited a second taped segment (Segment B) of self-disclosure behavior and the interviewer again administered the following taped verbal reinforcement to the model.

> I am now able to gain an understanding of your basic feelings concerning yourself and your personal world. Please continue to be frank about matters which are important to you.

With the completion of Segment B the interviewer administered, as above, this final reinforcement to the model.

> In the short time we have had together, I feel I got to know you very well. You were very frank in telling me the kind of person you really are.

Modeling + Direct Reinforcement Treatment

The direct reinforcement was a duplicate of the vicarious reinforcement model with the exception that the interviewer's verbal reinforcements

were deleted. After the model exhibited the first part of Segment A of self-disclosure behavior on the tape, the experimenter stopped the audiotape and presented the following oral instructions to the subject.

> You will now listen to two additional statements from Joe's interview. After you hear the two statements, you are to indicate whether Joe revealed more about his own thoughts and feelings in Statement A or in Statement B.

The experimenter then turned on the audiotape and presented Model Statements A and B (Appendix II). The subject had 60 seconds to make a response. The experimenter asked the subject what response he chose. Next, the experimenter orally administered the following direct reinforcement to the subject.

> In the statement you have chosen, Joe did a fine job of talking about his own thoughts and feelings and not those of others. He did not evade or back away from discussing himself with the interviewer. You did a good job in seeing this in the response that you have chosen.

The second part of Segment A was heard, and the experimenter again stopped the audiotape and presented the following oral instructions to the subject.

> After you hear Statements C and D, indicate the statement in which you think Joe revealed more about his thoughts and feelings.

The experimenter then turned on the audiotape and presented Statements C and D. The subject had 60 seconds to make a response. The experimenter asked the subject which response he chose. The experimenter orally administered the following direct reinforcement to the subject for either response C or D.

> Again, in the statement you have chosen, Joe revealed himself in an open manner. The interviewer can really understand what Joe is feeling and also, it helps Joe to learn more about himself. The response that you selected of Joe talking about himself was accurate.

The above procedure was repeated for Segment B. Then the experimenter orally presented this direct reinforcement to the subject after Statements E and F (Appendix II).

> You are being very observant of the way Joe is acting. Joe is being very honest and open with the interviewer. By being this way, you can see how much easier it is to understand him.

After the subject selected Model Statement G or H, the final direct reinforcement was presented.

> Joe is being very direct and to the point with the interviewer. This makes listening to Joe much easier. The response you have chosen tells me that you are doing a good job of understanding Joe's thoughts and feelings.

Modeling Alone Treatment Condition

The modeling alone treatment condition consisted of Segments A and B (Appendix I). The experimenter turned on the audiotape and the subject listened to the model self-disclose without the aid of any reinforcement from the interviewer.

Control Condition

The control condition consisted of neither models nor reinforcement. After the initial instructions, the subjects went directly into the interview situation.

Procedure

All inmate subjects (both experimental and control) were met by the experimenter in an institutional classroom. It was arranged so that each subject received his treatment condition separately. Throughout the experiment, the sequence schedule for treatment conditions was randomized.

The experimenter distributed written instructions to the subjects (Appendix III). The subjects in the experimental conditions were taken to a separate room for audiotape model exposure. When presenting the oral instructions and the direct reinforcements, the experimenter was in front of the subjects.

Oral instructions were presented by the experimenter to the experimental subject (Appendix IV). After exposure to a model treatment condition, an interviewer escorted each experimental subject to the appropriate interview room. In the interview room, the subject sat in a chair

positioned across from the interviewer's chair. The interviews were thirty minutes in length and were audiotaped. At the end of their interviews, the subjects returned to the classroom with the experimenter. There they received the Self-Disclosure Sentence Completion Blank (SDSB) by Greene (Appendix V), and Rotter's Interpersonal Trust Scale for Measuring Trust (Appendix VI). These were the same measures used for pretesting. The experimenter explained these instruments again to the subjects and answered any questions that arose.

In contrast to the experimental subjects, control group subjects were taken directly to the individual interview rooms after they received the initial written instructions. In the interview rooms, the procedure for the control subjects was exactly the same as that for the experimental subjects. After the interview, the procedure for the control subjects was the same as that for the experimental subjects.

Measures

A Self-Disclosure Sentence Completion Blank (SDSB) developed by Greene (1964, in Jourard, 1971), was used to measure written self-disclosure. The Haymes Technique for Measuring Self-Disclosure from Tape-Recorded Interviews was used to rate verbal self-disclosure. The Rotter Interpersonal Trust Scale (ITS) was used as an indicator for the level of trust generated by the treatment conditions. In an attempt to more fully assess the multiple dimensions of self-disclosure, multi-measures were used.

The first instrument in this study was the Self-Disclosure Sentence Completion Blank. This projective test consisted of twenty sentence

stems to be completed by the subject with statements about himself and his personal world. To score the subject's responses, the scorer assigned each response a scale value from 1 to 5, depending on its judged degree of revealingness, (Level One disclosures are very revealing; those at Level Five are evasive). The total score of this instrument was the sum of the scores for the twenty sentence stems. In a self-disclosure study, Graham (1970, in Jourard, 1971), obtained an interrater reliability of .91 with undergraduate judges. Furthermore, Graham found that the SDSB was significantly correlated ($P < .01$) with actual self-disclosure in the interview as rated by undergraduate judges.

The second dependent measure was Haymes Technique for Measuring Self-Disclosure from Tape-Recorded Interviews (Appendix VII). The four major categories of response were: (1) Expressions of emotion and emotional processes; (2) Expressions of need; (3) Expressions of fantasies, strivings, dreams, hopes; (4) Expressions of self-awareness. A score of 2 points was given to disclosures of the defined types when they were first person references. A score of 1 point was given to disclosures of the same types when they were impersonal second person references. These were statements in the third person in which the word "You" was an obvious substitution for saying "I". Non-reflective third person references, such as "people always...", in which the person was not really revealing any information about himself were not to be scored. Three, five minute segments throughout the interview, from 5 to 10 minutes, from 15 to 20 minutes, and the last 5 minutes, were rated.

It was difficult to find a measure for trust that was used with any consistency in self-disclosure studies. Of the current lines of

research on trust within psychology, the one that stems from Rotter's (1967) Interpersonal Trust Scale (ITS), has been most active as a research tool (Chun & Campbell, 1974; Karoly, 1975; Wright & Tedeschi, 1975). The Rotter is an additive scale that includes 25 trust and 15 filler items, and subjects respond on a 1 to 5 scale (strongly agree to strongly disagree).

The ITS has been validated in a number of laboratory settings, with questionnaires, self-reports, and peer ratings. High trusters are more trustworthy (less likely to lie) with interviewers (Geller, 1966; Roberts, 1967), with peers in games (Hamsher, 1968; Schlencker, Helm & Tedeschi, 1973), and are rated by their peers as more trustworthy (Rotter, 1967) than are low trusters.

The ITS has an internal consistency of .76, and retest reliabilities for five weeks, three months, and seven months were, respectively .69, .68, and .56.

In order to assess the construct validity of this scale, a first study was conducted (Rotter, 1967) using a sociometric method in college fraternities and sororities. Two sororities and two fraternities were used, and all members of these organizations who had lived together for a period of at least six months were included in this study. In addition to asking subjects to nominate members of the group who were highest and lowest in interpersonal trust, three other variables were included that might be related to trust--gullibility, dependency, and trustworthiness. As control variables, humor, popularity, and friendship were included.

The results of this study indicate that the scale could significantly predict sociometric ratings of trust and that these predictions were

significantly higher than the control variables of popularity, friendship and humor.

Rating Procedure

Two Ph.D. psychologists were trained as raters by the experimenter. The raters were naive to the purpose and design of the study. The tapes and scales were randomly assigned to each rater for scoring and throughout this process they worked independently of each other. Raters were given a copy of Haymes' (1971) scale for the measurement of self-disclosure. Following a training period using sample cases and followed by discussion, interrater reliability was assessed by using 4 minute samples from two tapes from each treatment condition (see Appendix VII for Scoring Directions). The self-disclosure tapes were rated at 3 five minute intervals - from 5 to 10 minutes, from 15 to 20 minutes, and on the last 5 minutes. Training raters in the GSCB involved raters scoring and discussing completed sentence blanks (see Appendix V for GSCB Scoring Directions). Similarly, scoring instructions were given for the Interpersonal Trust Scale (see Appendix VI for Directions).

Statistical Analyses

Rated scores on the Self-Disclosure Sentence Completion Blank, Haymes' Technique for Measuring Self-Disclosure from Tape-Recorded Interviews, and the Interpersonal Trust Scale were used in each of the analyses. A 4 (treatments) x 3 (interviewers) separate analysis of variance was computed on the Self-Disclosure Sentence Completion Blank and The Interpersonal Trust Scale. In the event of a significant main

effect, the Newman-Keuls Multiple Comparison Test (Kirk, 1968) was employed to analyze specific differences between treatments. A 4 (treatments) x 3 (interviewers) and a 4 (treatments) x 3 (interviewers) x 3 (time segments) ANOVAS were computed on the Haymes' Self-Disclosure from Tape-Recorded Interviews. The Newman-Keuls Multiple Comparison Test was employed to analyze specific differences between effects. To further clarify treatment effects on the Self-Disclosure Sentence Completion Blank, an analysis of covariance was computed using the pretest and posttest scores. To analyze the specific differences between treatments, the Newman-Keuls test on the adjusted means was utilized. A chi square test was performed on a post-interview questionnaire in which the experimental subjects were asked if they found the audiotapes helpful in their efforts to self-disclose.

The Pearson Product Moment Correlations between raters on the Self-Disclosure Sentence Completion Blank, the Haymes Self-Disclosure measure and the Interpersonal Trust Scale were performed. Acceptable levels of interrater reliability were found for each of the three dependent measures ranging from .87 to .99. As expected, the highest interrater reliability was obtained on the Interpersonal Trust Count, here r = .99. On the Self-Disclosure Sentence Completion Blank the interrater reliability obtained was r = .95 and on the Haymes Self-Disclosure it was r = .87.

CHAPTER III

RESULTS

Self-Disclosure Results

Means and standard deviations for the Self-Disclosure Sentence Completion Blank (SDSB) pretest, posttest and difference by treatment are presented in Table 1. The means and standard deviations for the SDSB posttest and difference by interviewers are shown in Table 2. Means and standard deviations for the Haymes Self-Disclosure by treatments, interviewers and segments are presented in Tables 3, 4, and 5 respectively. The segment means and standard deviations for the Haymes by treatment and interviewers are given in Tables 6 and 7.

Analyses of variance (ANOVA) were performed across conditions, interviewers and time segments in order to determine if there were any systematic differences for any of the dependent measures. The analysis of variance for the different scores on the SDSB by treatment and interviewer is summarized in Table 8. Examination of this table indicates that there was a significant treatment condition main effect on the SDSB, $F(3,48) = 46.74$, $p < .001$. No significant interviewer main effects were found, nor were there any significant interactions between treatments and interviewers. The analysis of covariance for the pretest and posttest self-disclosure scores on the Greene (SDSB) by treatment is presented in Table 9. A significant treatment condition main effect was found, $F(3,55) = 48.67$, $p < .001$.

TABLE 1

Means and Standard Deviations for the Greene Self-Disclosure Pretest, Posttest and Difference by Treatment

Treatments	Pretest		Posttest		Difference	
	M	SD	M	SD	M	SD
VR	72.26	9.17	54.26	9.06	-18.00	4.48
DR	62.53	17.34	55.13	12.86	- 7.40	6.27
M	62.80	13.54	59.80	12.41	- 3.00	3.27
C	62.13	14.50	62.06	13.23	- 0.06	3.28

Note: The higher the absolute value of the difference scores, the greater the increase in self-disclosure from pretest to posttest.

TABLE 2

Means and Standard Deviations for the Greene Self-Disclosure Posttest and Difference Scores by Interviewers

Interviewer	Posttest		Difference Scores	
	M	SD	M	SD
I	60.35	8.68	-8.50	6.79
II	59.70	10.48	-6.20	4.96
III	54.40	13.53	-4.55	8.95

Note: The higher the absolute value of the difference scores, the greater the increase in self-disclosure from pretest to posttest.

TABLE 3

Means and Standard Deviations for the Total Hayme's Self-Disclosure Scores by Treatment

Treatment	M	SD
VR	41.00	6.40
DR	32.93	8.25
M	28.20	7.02
C	25.00	7.76

TABLE 4

Means and Standard Deviations for the Total Haymes Self-Disclosure Scores by Interviewers Across Treatments

Interviewer	M	SD
I	32.00	7.31
II	31.10	11.20
III	32.25	9.79

TABLE 5

Means and Standard Deviations for the Haymes Self-Disclosure Scores by Time Segments Across Treatments

Segments	M	SD
Segment I	12.21	4.43
Segment II	10.50	3.37
Segment III	9.01	3.45

TABLE 6

Means and Standard Deviations for the Haymes Self-Disclosure Scores by Treatment Across Segments

Treatment	Segment I		Segment II		Segment III	
	M	SD	M	SD	M	SD
VR	16.00	3.70	13.26	3.05	11.73	3.30
DR	12.40	4.37	11.06	2.84	9.20	3.32
M	10.60	3.24	9.80	2.42	7.80	3.25
C	9.86	3.90	8.86	2.85	7.33	2.28

TABLE 7

Means and Standard Deviations for the Haymes Self-Disclosure Scores by Interviewers Across Segments

Interviewer	Segment I		Segment II		Segment III	
	M	SD	M	SD	M	SD
I	12.30	3.92	10.85	3.28	8.75	3.04
II	12.10	4.94	9.60	3.25	9.30	4.15
III	12.25	4.59	11.10	3.62	9.00	3.22

TABLE 8

Analysis of Variance for Difference Scores on the Greene (SDSB) by Treatment and Interviewer

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Treatment	2777.650	3	925.883	46.742	.001
Interviewer	49.633	2	24.817	1.253	.295
Treatment x Interviewer	134.100	6	22.350	1.128	.360
Residual	950.800	48	19.808		
Total	3912.183	59	66.308		

TABLE 9

Analysis of Covariance for the Pretest and Posttest Scores on the Greene (SDSB) by Treatment

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Covariates					
Greene Pretest	5874.344	1	5874.344	416.617	.001
Treatment	2059.133	3	686.378	48.679	.001
Residual	775.506	55	14.100		
Total	8708.983	59	147.610		

Table 10 summarizes ANOVA for the Haymes Self-Disclosure by treatment, interviewer and segment. This table reveals that on the Haymes Analysis of Variance by treatment, interviewer and segment, there was a significant treatment main effect, F(2,144) = 22.15, $p < .001$ and a significant segment main effect, F(2,144) = 14.29, $p < .001$. There were no significant interviewer effects. This table further reveals that there were no significant interactions between treatments, interviewers and segments.

The Newman-Keuls Multiple Comparison method was used in order to ascertain specific differences between the significant treatment conditions and to provide tests of the hypothesis. The .05 significance level was adopted for the post hoc mean comparisons.

The results of the post hoc comparison of the treatment means for the Self-Disclosure Sentence Completion Blank difference scores are presented in Table 11. Table 12 summarizes the Newman-Keuls Multiple Comparison of adjusted treatment means for the Self-Disclosure Sentence Completion Blank using pretest and posttest scores. Table 13 indicates the Newman-Keuls Multiple Comparison of treatment means for the total Haymes Self-Disclosure measure. The results of the post hoc comparison of treatment means by segments and the total time segment means for the Haymes are presented in Tables 14 and 15 respectively.

Interpersonal Trust Results (ITS)

Total means and standard deviations for the Rotter Interpersonal Trust pretest, posttest and difference by treatment are presented in Table 16. The means and standard deviations for the posttest and

TABLE 10

Analysis of Variance for Self-Disclosure Scores on the Haymes by Treatment, Interviewer and Segment

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Treatment	716.639	3	238.880	22.158	.001
Interviewer	5.678	2	2.839	.263	.999
Segment	308.311	2	154.156	14.299	.001
Treatment x Interviewer	124.011	6	20.669	1.917	.081
Treatment x Segment	24.578	6	4.096	.380	.999
Interviewer x Segment	20.689	4	5.172	.480	.999
Treatment x Interviewer x Segment	78.022	12	6.502	.603	.999
Residual	1552.400	144	10.781		
Total	2830.328	179	15.812		

TABLE 11

Newman-Keuls Multiple Comparison of Treatment Means for the Greene Self-Disclosure Difference Scores

Treatments	Means	VR -18.00	DR -7.40	M -3.00	C -.06
VR	-18.00		-10.60*	-15.00*	-17.94*
DR	- 7.40			- 4.40*	- 7.34*
M	- 3.00				- 2.94
C	- .06				

* $p < .05$

TABLE 12

Newman-Keuls Multiple Comparison of Adjusted Treatment Means for the Greene Self-Disclosure Pretest and Posttest Scores

Treatments	Means	VR 48.27	DR 57.10	M 61.55	C 64.36
VR	48.27		8.83*	13.28*	16.09*
DR	57.10			4.45*	7.26*
M	61.55				2.81
C	64.36				

* $p < .05$

TABLE 13

Newman-Keuls Multiple Comparison of Treatment Means for the Total Haymes Self-Disclosure Scores

Treatments	Means	C 25.00	M 28.20	DR 32.93	VR 41.00
C	25.00		3.20	7.93*	16.00*
M	28.20			4.73	12.80*
DR	32.93				8.07*
VR	41.00				

* $p < .05$

TABLE 14

Newman-Keuls Multiple Comparison of Treatment Means Across Segments for the Haymes Self-Disclosure Measure

Treatments	Means	C 8.35	M 9.40	DR 10.82	VR 13.66
C	8.35		1.05	2.47*	5.31*
M	9.40			1.42	4.26*
DR	10.82				2.84*
VR	13.66				

* $p < .05$

TABLE 15

Newman-Keuls Multiple Comparison of Time Segment Means for the Haymes Self-Disclosure Measure Across Treatments

Time Segment	Means	3 9.01	2 10.45	1 12.21
3	9.01		1.44*	3.20*
2	10.45			1.76*
1	12.21			

* $p < .05$

TABLE 16

Means and Standard Deviations for the Rotter Interpersonal Trust Pretest, Posttest and Difference by Treatment

Treatments	Pretest		Posttest		Difference	
	M	SD	M	SD	M	SD
VR	66.06	12.06	71.20	8.43	5.13	7.44
DR	68.46	15.57	72.86	12.23	4.40	5.67
M	67.80	11.66	71.86	10.19	4.06	5.02
C	71.00	11.75	74.66	8.13	3.66	6.13

TABLE 17

Means and Standard Deviations for the Rotter Interpersonal Trust Posttest and Difference by Interviewers

Interviewer	Posttest		Difference	
	M	SD	M	SD
I	70.45	8.50	6.25	6.49
II	72.74	8.96	4.10	5.48
III	74.75	11.45	2.60	5.69

effects to perseverate and maintain their psychological strength it becomes necessary to intermittently provide incentives for the performance phase of these behaviors.

Both the strategy and setting of this study's experimental procedure could be modified to allow for the utilization of incentives. Again, the effects of incentives manifest themselves during the performance phase of the target behaviors. The results of these further incentives would be a stabilization of the expectancy of reinforcement created during the acquisition phase and a facilitative factor in the self-disclosure performance phase.

The SDSB provided a slightly greater number of treatment differences than the Haymes and, therefore, provided greater support to the hypotheses. As a function of the required recording of verbal interaction with the interviewer in using the Haymes, the inmate subjects were possibly reluctant to fully disclose because of the interviewers' affiliation with the institution. Before a counseling type relationship could be formed, the task of disclosing about oneself to a classification officer may have been viewed by the subject as potentially damaging. In contrast, the task of completing sentence stems could have been perceived as less threatening than verbal disclosure into a tape recorder. Also, since different parameters were assessed, it is not surprising that the treatment differences showed some variation across the instruments.

Rotter Interpersonal Trust Scale (ITS)

As predicted, the relative order on the ITS was as follows:

difference by Interviewers for the Interpersonal Trust Scale are illustrated in Table 17.

The ANOVA for the trust scores by treatment and interviewer is summarized in Table 18. No significant treatment or interviewer main effects were found. Examination of Table 18 further indicates that there was no significant interactions between treatments and interviewers.

Hypotheses Tested

Hypothesis I

Subjects in the modeling + vicarious reinforcement, modeling + direct reinforcement and modeling alone condition will show significantly more self-disclosure and trust than subjects in the control condition.

Tables 11 and 12 show that the Self-Disclosure Sentence Completion Blank mean scores on vicarious and direct reinforcements were significantly greater than the mean of the control condition. However, the mean score of the modeling alone treatment was not significantly greater than the control condition. Similarly, on the Haymes, the self-disclosure mean scores for the modeling + vicarious reinforcement and modeling + direct reinforcement treatments were significantly greater than the control condition. There was no significant mean score differences between the modeling alone and the control condition. These results are illustrated in Tables 13 and 14. On the Interpersonal Trust Scale, as

indicated in Table 18, no significant treatment main effect was found. Therefore, Hypothesis I was partially supported. That is, on both the written self-disclosure measure (SDSB) and verbal self-disclosure measure (Haymes), the reinforcement treatment conditions showed significant differences over the control condition but the modeling alone treatment did not show significant difference over the control condition.

Hypothesis II

Subjects in the modeling + vicarious reinforcement condition will show significantly more self-disclosure and trust than subjects in the modeling + direct reinforcement condition.

As indicated in Tables 11 and 12, significant differences emerged in self-disclosure scores between the modeling + vicarious reinforcement and modeling + direct reinforcement treatments and the control condition in the predicted direction on the Self-Disclosure Sentence Completion Blank. The Haymes Self-Disclosure Measure also reported significant mean score differences between vicarious reinforcement and direct reinforcement in the predicted direction. Tables 13 and 14, respectively, illustrate these results, as well as indicate significance over the control condition. No significant treatment main effect was found on the Trust Scale. Therefore, since both dependent measures of self-disclosure reported significant mean score differences between vicarious and direct reinforcements in the predicted direction, Hypothesis II was supported.

Hypothesis III

Subjects in the modeling + vicarious reinforcement and modeling + direct reinforcement conditions will show significantly more self-disclosure and trust than subjects in the modeling alone condition.

Tables 11 and 12 reveal that modeling + vicarious reinforcement and modeling + direct reinforcement conditions show significant mean score differences over modeling alone and the control condition, on the Self-Disclosure Sentence Completion Blank. On the Haymes, as illustrated in Tables 13 and 14, both vicarious and direct reinforcement conditions showed significant mean score differences over the control condition but only the modeling + vicarious reinforcement treatment showed significance over the modeling alone condition. Table 18 reveals no significant treatment main effect on trust. Thus, the results provide partial support for Hypothesis III. That is, under written self-disclosure (SDSB), vicarious and direct reinforcement showed significance in the predicted direction. However, on the verbal self-disclosure measure (Haymes), vicarious reinforcement and direct reinforcement showed significance over the control condition but only vicarious reinforcement showed significant results over the modeling alone treatment condition.

The experimental subjects were asked to indicate whether they felt the audiotapes were helpful in their efforts to self-disclose. Though no specific predictions were made concerning the responses, 74% of the subjects indicated more disclosure, 21% indicated about the same

and 5% indicated that they disclosed less to the interviewer than they ordinarily would have. The Chi Square analyses indicated a significant difference, $x^2 = 16.28$, df = 6, $p < .05$.

CHAPTER IV

DISCUSSION

The findings of the present study provide information pertaining to the issues of modeling + vicarious reinforcement vs. modeling + direct reinforcement and modeling alone. Using a prison population, with all treatments administered prior to the interview, the results appear sufficiently promising to warrant further investigation and development.

According to the analysis, the findings suggest that both modeling + vicarious reinforcement and modeling + direct reinforcement produced significantly stronger effects than the modeling alone and the control condition on written self-disclosure using the SDSB. In using the Haymes to measure verbal self-disclosure the results showed both modeling reinforcement treatment conditions with significantly stronger verbal disclosure effects over the control condition. However, only modeling + vicarious reinforcement indicated significance over modeling alone on the Haymes. Thus, the comparative overall superiority of modeling + vicarious reinforcement was indicated. Here, the observation of response consequences to a model provides the observer with guidance as to appropriate performance in the experimental task. The different reinforcements serve as discriminative stimuli for the observer, indicating the appropriateness associated with performance to the model's acts. These and other findings which provide evidence for the effectiveness of of modeling + reinforcement with an inmate population are discussed in the following section.

Treatment Effects on the Dependent Measures

Self-Disclosure Sentence Completion Blank (SDSB)

Subjects in the modeling + vicarious reinforcement treatment group appeared to disclose at a significantly higher level of self-disclosure on the SDSB than subjects in the modeling + direct reinforcement treatment. Furthermore, the modeling + vicarious reinforcement and modeling + direct reinforcement experimental groups disclosed at a significantly higher level than the modeling alone and control group, thus supporting Hypotheses II and III. It could be deduced that reinforcement to the model was more effective than direct reinforcement to the subject in enhancing written self-disclosure. The results also revealed that modeling + vicarious reinforcement and modeling + direct reinforcement were more effective than modeling alone. These findings suggest that the passive observation of the response consequences to a model is the optimum condition to learn reinforcement contingencies and to provide self-instructions for later task performance.

The SDSB results partially supported Hypothesis I which predicted greater self-disclosure from both modeling + vicarious reinforcement and modeling + direct reinforcement conditions over the control group and modeling alone. Although it is indicated that both modeling + reinforcement treatment conditions produced a significantly higher level of self-disclosure, the modeling alone treatment group produced a non-significant level of disclosure over the control condition.

In considering psychotherapy to be primarily a verbal medium, it may be reassuring to note that desirable client written self-disclosure

can also be shaped through modeling + reinforcement. According to the analyses, the findings suggest that modeling + vicarious reinforcement, when presented prior to an interview does tend to have the most significant effect not only on verbal but, also on written disclosure.

Haymes Self-Disclosure Measure

The results revealed that subjects in the modeling + vicarious treatment condition produced a significantly greater level of self-disclosure than the modeling + direct reinforcement, modeling alone, and the control condition, thus supporting Hypotheses I, II, and III. Through the use of the Haymes, the data analysis revealed that the modeling + direct reinforcement treatment had a stronger influence than the control condition on the performance of verbal disclosure but lacked significance over the modeling alone treatment condition. Kanfer (1965) pointed out that performers have greater difficulty in ascertaining response-reinforcement contingencies in comparison to observers.

According to both social learning and reinforcement theorists, the performance of modeled behavior is strongly regulated by the expectancy, amount, and frequency of reinforcement. It seems likely that an expectancy of reinforcement for talking about oneself was established in the subjects. However, after this expectancy of reinforcement was developed, the subjects did not receive a significant amount or frequency of direct reinforcement from the interviewer and thus, the decline in self-disclosure on the Haymes verbal self-disclosure measure as the interview progressed. Examination of Table 15 reveals these

significant differences between time segments indicating the disclosure declined throughout the interview. Therefore, we could deduce that although modeling + vicarious and direct reinforcement administered in a preinterview setting generally produced significant self-disclosure results over the other treatment conditions, the need for reinforcement throughout the interview warrants investigation. Such an approach would possibly enable consistency in disclosure results as the interview progressed.

The significant decrease in self-disclosure on the Haymes, measured across segments, may be interpreted in the following fashion. The expectancy of reinforcement developed in the subject during his exposure to treatment (acquisition phase) was not nurtured by the interviewer. The role of the interviewer did not involve provision for direct reinforcement of an inmate's self-disclosure behavior. Ostensibly, this led to a gradual lowering of the inmate's expectancy of reinforcement and consequently, resulted in a decline in self-disclosure performance as the interview progressed.

The data results from the Haymes Self-Disclosure measure indicated a significant incidence of self-disclosure behavior on the first five minute recorded segment. The latter served to show the acquisition of the target self-disclosure behavior as a function of the experimental treatments. However, the gradual decrease in self-disclosure behavior from segment one to segment three indicated a certain degree of extinction of the acquired behaviors. The latter findings characterize the role of incentive or direct reinforcement on the performance of already acquired behaviors. As mentioned above, in order to allow the treatment

effects to perseverate and maintain their psychological strength it becomes necessary to intermittently provide incentives for the performance phase of these behaviors.

Both the strategy and setting of this study's experimental procedure could be modified to allow for the utilization of incentives. Again, the effects of incentives manifest themselves during the performance phase of the target behaviors. The results of these further incentives would be a stabilization of the expectancy of reinforcement created during the acquisition phase and a facilitative factor in the self-disclosure performance phase.

The SDSB provided a slightly greater number of treatment differences than the Haymes and, therefore, provided greater support to the hypotheses. As a function of the required recording of verbal interaction with the interviewer in using the Haymes, the inmate subjects were possibly reluctant to fully disclose because of the interviewers' affiliation with the institution. Before a counseling type relationship could be formed, the task of disclosing about oneself to a classification officer may have been viewed by the subject as potentially damaging. In contrast, the task of completing sentence stems could have been perceived as less threatening than verbal disclosure into a tape recorder. Also, since different parameters were assessed, it is not surprising that the treatment differences showed some variation across the instruments.

Rotter Interpersonal Trust Scale (ITS)

As predicted, the relative order on the ITS was as follows:

VR · DR · M · Control treatment. However, there were no significant differences. A possible explanation for this result is that the subjects were obstructed because of the environmental setting of a penal institution. Although, the trust variable was included as exploratory, it is well to view these findings with caution because of the subject population and the nature of the study employed. The personal circumstances that surround the lives of inmates cause them to be highly distrustful of others (Rehl & Wineman, 1951). To build a trusting relationship between an institutional staff member and an inmate can take numerous interviews over an extended period of time in a correctional setting. Davis and Skinner (1974), Derlega, Harris, and Chaikin (1973) and McAllister and Kiesler (1975) found that trust will be built to the extent that the other expresses reinforcement for one and one's statements and to what extent that the interviewer reveals himself to the client. The fact that neither interviewer self-disclosure nor reinforcement were administered during the interview, possibly influenced the trust level of significance. However, it is interesting to note that without the evidence of a high level of trust and reciprocity, self-disclosure was significant. The importance of trust in a counseling relationship has been demonstrated by Friedlander (1970), Strong (1968) and Strong and Schmidt (1970). However, in the present study, the apparent lack of significance on the trust variable did not appear to hinder obtaining significant results on both the verbal and written self-disclosure measures.

Finally, the difficulty of finding a dependent measure for trust in this study should also be noted. Chun and Campbell (1974) reported

Rotter's (1967) Interpersonal Trust Scale as the most active and growing in prominence as a research tool in trust. However, there is no manual available and demographic data were examined for college students thus, possibly decreasing its applicability for the inmate population in this study.

Interviewer Effects

The results indicate that there were no significant interviewer main effects or interviewer x treatment interaction effects on the three measures. These findings were expected, because the interviewers had received the same interview instructions in the training sessions, they had similar interviewing experience within correctional institutions, and all three had recorded the same level of interaction on the Hill Interaction Matrix.

Although no interviewer effects in the dependent measures were found, there is ever present the important issue involving the general influence of the interviewers on modeled behavior. One aspect of this issue concerns the emission of verbal and non-verbal reinforcements by the interviewers. Even though every precaution was taken against the interviewers dispensing verbal and non-verbal reinforcements, the possibility of totally eliminating reinforcement cues without affecting to some degree, the subject's performance and perception of the interview is highly unlikely.

Limitations of the Study

The most significant methodological problem in this study has to

do with the fact that the classification officers, who serve as interviewers, are members of the institutional staff. However, at the same time as this is a problem, it is also an asset. A significant trend in the mental health field consists in the training and increasing use of paraprofessional and nonprofessional personnel in the modification of behavior to help clients in their natural setting. Another limitation is that the interview self-disclosures were judged by the raters and by the subjects but not by the interviewers. While the raters listened to only three, five-minute segments of the interview, the interviewers observed the subjects for thirty minutes. Furthermore, the interviewers had the advantage of witnessing the subject's body language, and also being aware of their own nonverbal behavior. Therefore, it seems that only the interviewer can truly obtain the gestalt of the session, unless videotaping is used. However, such a procedure was not feasible under the circumstances surrounding this study.

A major reason for omitting interview ratings of the subjects' performance was the desire not to bias the disclosure scores by revealing the dependent variable to the interviewers.

Although the findings of this study indicate significant results for correctional institutions, this type of population limits the generalizations which can be made from the data. The subjects used in this study constitute a serious limitation for generalization to other populations and to the counseling situation. Since all the subjects were male inmates of a medium security penitentiary, one should be cautious in generalizing the results, especially to females. Also, the sample was same-sex dyads (subject-interviewer) and the results should not be generalized to mixed-sex dyads.

A further limitation involves whether the modeling + direct reinforcement condition is comparable to modeling + vicarious reinforcement condition in this study. At one level of abstraction it could be maintained that both the model on the audiotape in vicarious reinforcement and the actual subjects in the direct reinforcement condition were reinforced for self-disclosure performance. However, it could also be interpreted that the taped model was reinforced for performing high level self-disclosure responses, but the actual direct reinforcement subjects were reinforced for discriminating high level self-disclosure responses.

An alternative design could have subjects in the modeling + direct reinforcement condition being reinforced for verbalizing their own self-disclosure responses. However, a major difficulty in this procedure would be the level and reliability of self-disclousre for which they would subsequently be reinforced. This design for modeling + direct reinforcement could possibly reduce the acquisition and performance of the modeled behavior.

Finally it was noted that the modeling + vicarious reinforcement group exhibited a mean on the Greene SDSB which was quite deviant from the means of the other groups. For this reason an analysis of covariance was employed using the Greene pretest as the covariate and the Greene posttest as the dependent measure. The results of this analysis supported predicted hypotheses as well as the original ANOVA did.

It should also be noted that the caution given by Gitter and Black (1976) has been considered and operationalized in this study. Self-disclosure is simply defined as verbal behavior by which one person seems to be telling another something about himself. No judgement is made here regarding the value or accuracy of such disclosures.

Implications of the Study

The results of the current investigation have implications for further research and for the application of modeling + reinforcement techniques to interviewing. The data analysis generally indicated that the preinterview models significantly enhanced written self-disclosure and verbal self-disclosure but failed to significantly increase trust. In this study, experimental subjects were exposed to a single high level disclosure model and then were rated on their immediate self-disclosure performance in the interview. In contrast, a follow-up study might investigate the influence of multiple exposure to models that varied in level of behavior. For example, a moderate level disclosure model could be presented prior to the fifth session, etc. With this alternative design, a counseling relationship could be formed before a client or subject was expected to perform a high level modeled behavior. A second advantage is that the counselor would be able to determine the appropriate model level and timing of presentation in accordance with the individual need of the client or subject.

In attempting to investigate the use of preinterview modeling and reinforcement conditioning procedures in the modification of self-disclosure, predominance of modeling + vicarious reinforcement resulted. To explore the interactive effects of preinterview vicarious reinforcement and interview direct reinforcement on self-dislcosure would be beneficial. As the interview progressed, a significant regression in the level of self-disclosure was noted. Throughout the study modeling + vicarious reinforcement produced effects as predicted over all other forms of treatment--that is, modeling + direct reinforcement, modeling alone and the control condition. On the other hand, modeling + direct

reinforcement showed significance over modeling alone and the control condition on written self-disclosure. However, on verbal (interview) disclosure, significant results were reported only over the control condition. From this we could deduce that additional research investigating a combination of preinterview modeling + vicarious reinforcement, with direct reinforcement administered throughout the interview to help sustain the level of self-disclosure would be beneficial.

A direction for consideration for future research could be the importance of preinterview modeling effects on the outcome of individual counseling + self-disclosure over an extended period of time. Truax et al. (1970) have provided evidence that self-disclosure modeling is significantly related to successful outcome in group therapy.

In terms of counseling application, an implication of the results is that a brief audiotape vicarious reinforcement model appears to be an effective technique in enhancing client self-disclosure. Along with its generally superior control over modeled performance, modeling + vicarious reinforcement has several pragmatic advantages over modeling + direct reinforcement. First, a client could listen to modeling + vicarious reinforcement prior to counseling without the aid of a counselor to dispense direct reinforcements. Secondly, a vicarious reinforcement model does not require a response or overt performance by the client. Therefore, modeling + vicarious reinforcement is simpler to set up not only in a correctional institution but in any agency and also, it provides a more economical use of the client's and counselor's time.

The psychologist assumes obligations for the welfare of his research subjects. When the decision has been made to conduct research,

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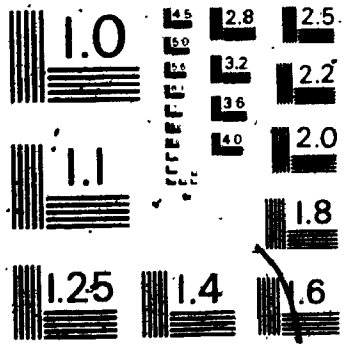

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the psychologist must carry out the investigation with respect for the people who participate and with concern for their dignity and welfare.

In planning a study such as the present one, the experimenter has the personal responsibility to make a careful evaluation of its ethical acceptability, taking into account the principles for research with human beings.

CHAPTER V

SUMMARY

This research used a prison population from a Federal Medium Security Institution to investigate the effects of modeling + vicarious modeling vs. direct reinforcement, and modeling alone in facilitating self-disclosure. From the one hundred newly admitted inmates that were pretested, a total of sixty were randomly selected as subjects. There were three treatment conditions: modeling + vicarious reinforcement, modeling + direct reinforcement, modeling alone and a control group. Each group had fifteen subjects. The preinterview treatment conditions consisted of individual instructions, an audiotape model exhibiting a high level of self-disclosure with some subjects receiving vicarious, direct, or no reinforcement, and a half hour interview. The control subjects were not exposed to a model or reinforcement but were taken directly to the interview situation after receiving initial instructions. All the interviews were conducted by three male classification officers from within the institution.

To assess the written level of self-disclosure, the Self-Disclosure Sentence Completion Blank (SDSB) was employed and for verbal (interview) disclosure, the Haymes measure was utilized. Exploratory in nature was the variable of trust, assessed by using Rotter's Interpersonal Trust Scale (ITS). Factorial designs consisting of a 4 (treatments) x 3 (interviewers) and a 4 (treatments) x 3 (interviewers) x 3 (time segments) were used. To further clarify the results on the SDSB an analysis of covariance

was also employed. The analyses indicated a significant treatment main effect on the SDSB and the Haymes Method. The Newman-Keuls Multiple Comparison Test on the SDSB revealed that both modeling + vicarious and direct reinforcement produced a significantly greater level of disclosure than the modeling alone and control condition. The data analyses on the Haymes indicated that modeling + vicarious reinforcement resulted in significantly greater verbal disclosure than all other treatment conditions throughout the interviews. The modeling + direct reinforcement was only significant over the control condition on the verbal measure. Overall, the results indicated that modeling + vicarious reinforcement, when administered prior to an interview, produced the most desired results in clarifying the subject's task of self-disclosure and thus, accelerating the interview process.

It is interesting to note that the apparent lack of significance on trust did not appear to influence the level of self-disclosure following the modeling reinforcement treatments. The lack of reinforcement throughout the interview and the lack of disclosure reciprocation on the part of the interviewers could have affected the level of trust significance. However, what could be more important in leading one to be cautious in interpreting these trust results, are the environmental circumstances surrounding inmate subjects. The "convict culture" shapes inmate behavior. Within the prison walls is a small, complete society which has all the attributes of any other society such as a code of behavior. Unfortunately, its dictates are usually anti-administration thus causing a deeper sense of mistrust than what may be found in a normal population.

In examining the nature of the concept of self-disclosure we see that in Gitter and Black (1976), the term "self-revealing" denotes a sincere disclosure of self, not simply the verbalization of information about self that may be gilded. Although it is difficult to clearly give a "correct" definition of self-disclosure, it is imperative that the significant relationship of self-revealing and gilding be given careful consideration. In other words, it does not seem appropriate to consider a dishonest presentation of one's self as an instance of "self-disclosure".

Although there is no specific indication in the present study that the self-disclosure results were gilded, the issue of self-disclosing and self-revealing is of paramount importance. If the content of self-disclosure statements is drawn into question, it can still be of significant importance. For instance, if the self-disclosure obtained in the present study was not self-revealing it could still be useful. It could be shaped to obtain the desired results in the client through such aids as building up rapport and trust over extended interviews, with the end result being self-revealing statements instead of "gilded" self-disclosure statements.

In conclusion, results provide support for the idea that the interview situation within a correctional institution can be facilitated by preinterview modeling + reinforcement. In viewing counseling as a learning process this treatment approach appears to be a desirable means of developing an effective counselor-client relationship.

APPENDIX I

Typescript of Audiotape of Segment A and Segment B

Segment A

Interviewer: Hello, Joe. Have a seat. In this interview, I would like you to try to talk to me about yourself.

Model: Okay, I think I am a sensitive person. I mean... Well...I don't feel touchy about what people think or say or carry things around bottled up inside like a friend of mine does. I'm pretty much aware about how my friends feel about some things and I try not to say anything that I know would hurt them. Of course this doesn't always work out and I'll say or do something and then feel bad about it afterward. Or even at times when I say it, I know what it's going to do and I do it anyway. Like my friend really got to me last weekend and I was trying to rest and he brings in some friends and started to talk. Well he knew I had a bad day but didn't care. So I really cut him down about being rejected by his old lady and I knew when I said it it'd get to him and it did. And... well it was a little strong and I really didn't want to hurt him like that. So I felt kinda sorry I'd said it later and apologized.

Interviewer: Could you tell me some more about how you feel?

Model: Well, one thing that gets me in trouble is losing my temper. When I get mad at another fellow I get into a fight. When I get angry at a boss, I tell him off and I get tossed off a job. Sometimes, I don't get mad in the same way. I kinda say, "to hell with them", and refuse to cooperate anymore. No matter what they ask me to do when I am mad, I refuse to do it just to "show them". The result is usually the same--I get thrown off the job. No matter how I leave the job, the result is always the same--loss of paycheck--because I won't take the static. I will have to learn how to hold my temper when I am in the wrong. But I don't know how long I could "take it" when I know I am right and the boss is wrong in bugging me.

Segment B

Interviewer: Joe, could you say more about that?

Model: Fear is certainly something I've experienced during my lifetime and I'm sure I'll go on experiencing it every now and then. It's something I don't particularly like to experience but at times it does seem to motivate me to do things...like get up when I am suppose to, or do my work. I'm no longer afraid of the dark or frightened by imagined monsters. It's really hard to describe what it is that I am afraid of now. Oh...I mean I still jump at a loud noise I'm not expecting or something like that. But I guess my fears now are mostly about the future... being out on my own...applying for a job...these kind of things. I do get a little anxious about doing time but it's not uncomfortable...most of the time anyhow. Once in a while if I think of going before the Parole Board I'll have trouble sleeping at night.

Interviewer: What else can you tell me about yourself?

Model: Sometimes, I encounter a person in authority like an instructor, guard, or policeman who I feel hasn't considered my rights, and who seems only to want to push me around. Whether or not they really are unfair is not the point. I guess what is most important for me to keep in mind is that when dealing with people such as these, the way I talk to them and act in front of them will have a big effect on how they treat me. I need to look at ways to talk to those in authority. My way is not very good and unless I change I will probably continue to get into a lot of trouble. I try to get even with those who I feel are pushing me around by acting out. Driving fast, making someone else look silly, stealing something or breaking rules in front of someone who has to enforce them, are examples of how I react.

APPENDIX II

Model Statements in Direct Reinforcement Conditions

Statement (A) I think everyone has problems dealing with other people, even their friends, at times. Almost everyone I know can solve their problems better than I can. Although I know there is no one sure way to solve problems, I avoid doing anything about the problem and just hope it will go away.

(B) When many of my friends get into trouble they try to talk to someone else about their problem. I think it's a good idea to have someone look at your problem with you. I get too wrapped up in things to even try to see them clearly and work out a solution.

(C) When I am bored I seem to end up getting into trouble. Sometimes, when I even have a job that I don't like, I get bored and won't do the work the way I should. When this happens I always end up arguing with my boss. Being bored can make me feel unable to really get out and do something constructive.

(D) I know a job is very important and that you should try to like your work. I like to earn something for myself through my own efforts. A job makes me feel independent but it's tough when you don't like your boss or the job and have to try to act as if nothing were wrong.

(E) Being interviewed makes me tense and anxious because interviewers often ask questions which are hard to answer. Because I have a past record, I fear nobody will want to trust me in a position of responsibility.

(F) I become very anxious and upset when I think of the day I will have to go for a job interview. I never was any good at that sort of thing but now it will be even more difficult since I have done time.

Statement

(G). I always seem to risk getting into trouble or even getting hurt in order to get even with those in authority that I do not like. I guess that's a pretty high price to pay if there's a better way.

(H). One way I get attention, from even those that I do not like, is by showing off. It seems to be real cool to do something daring or clever, because I know lots of people don't like it. My friends, especially my girlfriend, seem to enjoy it and I think like me more for acting this way.

APPENDIX III

Initial Instructions

Thank you for coming to participate in this Experimental Interview. We are interested in the beliefs, feelings and problems of individuals in this Institution. In addition, we are interested in studying interview procedures. You will enter a confidential interview to try to share your beliefs, feelings and problems with your interviewer as much as possible.

APPENDIX IV

Interview Procedure

Shortly, you will be entering a thirty minute interview. In order to get some idea of what to expect, I will play taped segments of interviews from a similar experiment. Although, it is from a different experiment, it is a good example of an inmate revealing his own thoughts and feelings to the interviewer. Finally, while we are in this classroom, please, do not enter into any discussion with your fellow experimenters.

APPENDIX V

Self-Disclosure Sentence Completion Blank

Self-Disclosure Sentence Completion Blank (Greene, 1964)

Name _____ Age _____ Date _____
(Please Print)

Instructions

This sentence completion blank is designed to help gain an understanding of your basic feelings concerning yourself and your personal world. Please complete these sentences to express your real feelings, trying to be as frank as possible about matters which are personally important to you. Try to do every sentence. Be sure to make a complete sentence.

1. Sometimes I _____
2. I can't _____
3. Sexual thoughts _____
4. I often wish _____
5. There have been times when _____
6. My biggest problem is _____
7. I secretly _____
8. I feel _____
9. Loneliness _____
10. I feel guilty _____
11. I have an emotional need to _____
12. I regret _____
13. I hate _____
14. I am afraid _____
15. I _____
16. I am best when _____
17. I am worst when _____
18. I need _____
19. I punish myself _____
20. I am hurt when _____

Scoring Manual

Purpose and Scoring Procedure

The Self-Disclosure Sentence Blank is an attempt to standardize a method for scoring a subject's sentence completions for the degree to which he willingly reveals core aspects of his private and personal world.

The subject is asked to complete 20 sentence stems which have been designed to have "high pull" for self-disclosure. Although the subject's responses can be used for general interpretation in the same manner that a clinician trained in dynamic psychology uses any projective material, this particular scoring procedure is not designed to take into account information about the subject which he in fact does not purposely disclose. This is important for the scorer to keep in mind so that he does not "read in" meaning to responses as he is scoring them. For example, if a female should respond to the stem, "I hate....", with "umbrellas", this may yield rich information for anyone interested in Freudian dynamics, but in keeping with the purposes of this scale, it would be scored as grossly evasive and unrevealing (Level Five).

Another error to guard against is the incorrect scoring of a response as unrevealing because the scorer finds it difficult to believe that the subject was serious in his response. Such completions might be: "I feel...crazy", "I regret...my whole life", "I ...fear this test too much", or, "I am worst when...I am sober". In all instances, the scorer is admonished to accept subject responses at face value, and to score each response, as it is written, for its closeness to what are likely to be core issues in a person's personal life. For example, both the completions, "I feel...with my hands", and "I feel...crazy", might not be meant seriously, but the scorer is to assume that they are, and to rate their revealingness accordingly. Thus, even if a subject is serious when saying that he feels "with his hand", but is still being grossly unrevealing of his personal life. But if a subject is taken seriously when he says that he "feels crazy", he is being quite open about an important aspect of his personal life. To repeat, all responses are to be judged by their verbal content, and not the inferred intentions of the subject.

The instructions for the Self-Disclosure Sentence Blank are intended to give the subject a clear understanding of what the examiner is interested in. These instructions are:

> This sentence completion blank is designed to help gain an understanding of your basic feelings concerning yourself and your personal world. Please complete these sentences to express your real feelings, trying to be as frank as possible about matters which are personally important to you.
>
> Try to do every sentence. Be sure to make a complete sentence.

These instructions are meant to say in effect, "I'd like to get to know you as well as possible in the short time we have together. Please tell me as frankly as you can what kind of person you really are deep down under the skin."

To score the subject's responses, the scorer assigns each response a scale value from 1 to 5, depending on its judged degree of revealingness. (Level One disclosures are very revealing; those at Level Five are evasive.) The responses can be scored in a relatively objective manner if the scorer (1) makes himself thoroughly familiar with the descriptions which provide the rationale for the five levels, and (2) compares each response with typical examples provided for each level in the scoring-by-matching section of this manual. The sum of the individual scale values for all stems provides the index of self-disclosure.

In order to minimize the tendency to score all responses in light of the overall impression made by the subject, each completion is to be scored independently of all others, except when there is a clear reference to a previous disclosure. When scoring a number of individuals, each stem should be scored for all subjects before proceeding on to the next stem; that is, all stems numbered 1 before going on to all stems numbered 2, etc. If, while scoring a particular stem, the scorer should find a response which, in and of itself, makes little sense, the immediately preceding completions should be re-read to see whether or not the subject is continuing a train of thought from a previous disclosure. For example, if a completion number 4 should read, "I often wish...and pray they didn't", it would make little sense, as it stands alone. But if the subject's completion number 3 is found to read, "Sexual thoughts... possess me all the time and make me guilty", then completion number 4 gains meaning and revealingness when viewed as a continuation of this previous disclosure.

The scorer may find on occasion that despite his best efforts, he cannot decide at which of two levels a response best fits. In order to achieve some consistency in such cases, the response should be scored at the higher level of self-disclosure.

The Five Scoring Levels

The question to be kept in mind is this: How much does this disclosure, taken alone, and at face value, contribute to an understanding of this person's private and personal world? Or, to shift the emphasis slightly, how willing has this person been to allow the examiner to know him as he sees himself?

Level One

He reveals basic feelings and emotions of a personally relevant nature about a central aspect of his private and personal life.

This material is likely to play a major role, or have a fundamental effect, on the shaping of a large part of the subject's personal as well as public experience. His point of reference is his own inner experience--his own subjective world. He speaks as an internal observer reporting on internal events, even when the comment also includes mention of the external world.

What is disclosed is likely to be the sort of thing which one would never know unless told, and which would ordinarily be told only to a close and trusted friend. There is no attempt to present himself in a socially desirable manner. Facades are absent, and as a result, core constructs by which he maintains his identity and existence, as well as areas of extreme conflict, are likely to be directly and frankly discussed. For instance, statements concerning his self-image, his approach to fundamental interpersonal relationships, sexual conflicts, severe family problems, and strong feelings of personal confusion are likely to be scored at this level.

This self-disclosure, taken alone, and at face value, contributes significantly to an understanding of the subject's personal world of experience.

Level Two

He expresses feelings and emotions of "secondary" importance and/or of a less personal nature than at Level One. He may hint at or speak in a qualified or more distant way about material which might otherwise fall within Level One. Distance from the core theme may be along a dimension of person, place, time, intensity, or frequency. Disclosures at this level, while personally important, often tend to be more content and situation specific than at Level One. That is, the content does not play as major a role over as wide an area of the subject's life.

The focus remains, however, on internal experience which seems of direct relevance to the person's personal life. What is revealed would not ordinarily be said to casual acquaintances. He does not necessarily present himself in socially favorable terms. He seems to be honestly trying to express himself about important aspects of his subjective world, but is unwilling or unable to reach the degree of openness expressed at Level One. He does, however, purposely reveal something important and fundamental about his basic personality.

Level Three

He reveals important facts and/or details of an "external" nature. Material revealed at this level probably plays a major role in the shaping of the subject's private life. The focus of attention is generally not on his subjective inner experience, but rather on people and events in the world outside of himself, things happening to him, and things which he does. When feelings or emotions are

expressed, they do not seem deep-seated or closely tied to the core constructs by which he maintains his identity and existence.

Although what is revealed is probably important to the subject and his public life, it might be revealed to a casual acquaintance, and in general would not prove embarrassing if publicly known. Some guardedness may be apparent, and personal statements of a socially undesirable nature tend to be avoided. Although this material may help in coming to know the subject, he is (purposely) revealing little or nothing of significance about his private, experiential world.

Level Four

He discloses facts and/or details of "secondary" importance and of an "external" nature. This material probably plays a relatively minor role in a limited area of the subject's life, and would appear to have little or no lasting effect on his moment to moment personal experience. His point of reference is clearly the external world, and he may speak as a detached, nominally interested external observer.

Guardedness is often apparent, and socially undesirable statements are almost nonexistent. What is revealed might easily be said to a stranger or made public with embarrassment. Problems, when they are mentioned at all, are never deep-seated or in any manner incapacitating. If feelings or emotions are expressed, they are distant from the core constructs by which the subject's identity and existence are defined. Minor incidents, facts, wants, beliefs, etc., may be disclosed, but their sphere of influence is quite likely to be content and situation specific, and relatively trivial when compared with what might be said about central areas of a person's personal or public life.

Vague or highly qualified reference may be made to material which might otherwise fall within Level Three. The subject may reveal strong negative attitudes, but only in socially approved ways.

Level Four statements help give the examiner very little, if any, understanding of the subject's personal and private world.

Level Five

Essentially neutral, meaningless, or grossly evasive material is offered at this level. Omissions are scored at this level, as well as stereotype answers, cliches, catch phrases, etc. The subject represents himself as having no real problems. Statements at this level give the examiner no understanding of the subject's personal or public life.

APPENDIX VI

Interpersonal Trust Scale -- J. B. Rotter

Key

Interpersonal Trust Scale

Regular Items (scored 1, 2, 3, 4, 5); F = Filler Items (15 items)
R = Reversed scoring on 12 items (scored 5, 4, 3, 2, 1).

GENERAL OPINION SURVEY

This is a questionnaire to determine the attitudes and beliefs of different people on a variety of statements. Please answer the statements by giving as true a picture of your own beliefs as possible. Be sure to read each item carefully and show your beliefs by marking the appropriate number on your IBM answer card (or answer sheet).

If you strongly agree with an item, fill in the space numbered one. Mark the space numbered two if you mildly agree with the item. That is, mark number two if you think the item is generally more true than untrue according to your beliefs. Fill in the space numbered three if you feel the item is about equally true as untrue. Fill in the space numbered four if you mildly disagree with the item. That is, mark number four if you feel the item is more untrue than true. If you strongly disagree with an item, fill in the space numbered five.

1. Strongly agree
2. Mildly agree
3. Agree and disagree equally
4. Mildly disagree
5. Strongly disagree

Please be sure to fill in the spaces completely and to erase completely any marks to be changed. Make no extra marks on either the answer card or the questionnaire.

F 1. Most people would rather live in a climate that is mild all year around than in one in which winters are cold.

2. Hypocrisy is on the increase in our society.

3. In dealing with strangers one is better off to be cautious until they have provided evidence that they are trustworthy.

4. This country has a dark future unless we can attract better people into politics.

5. Fear of social disgrace or punishment rather than conscience prevents most people from breaking the law.

R 6. Parents usually can be relied upon to keep their promises.

F 7. The advice of elders is often poor because the older person doesn't recognize how times have changed.

8. Using the Honor System of not having a teacher present during exams would probably result in increased cheating.

9. The United Nations will never be an effective force in keeping world peace.

F 10. Parents and teachers are likely to say what they believe themselves and not just what they think is good for the child to hear.

R 11. Most people can be counted on to do what they say they will do.

F 12. As evidenced by recent books and movies morality seems on the downgrade in this country.

F 13. The judiciary is a place where we can all get unbiased treatment.

14. It is safe to believe that in spite of what people say, most people are primarily interested in their own welfare.

R 15. The future seems very promising.

16. Most people would be horrified if they knew how much news the public hears and sees is distorted.

1. Strongly agree 2. Mildly agree 3. Agree and disagree equally
4. Mildly disagree 5. Strongly disagree

F 17. Seeking advice from several people is more likely to confuse than it is to help one.

R 18. Most elected public officials are really sincere in their campaign promises.

F 19. There is no simple way of deciding who is telling the truth.

F 20. This country has progressed to the point where we can reduce the amount of competitiveness encouraged by schools and parents.

21. Even though we have reports in newspapers, radio and television, it is hard to get objective accounts of public events.

F 22. It is more important that people achieve happiness than that they achieve greatness.

R 23. Most experts can be relied upon to tell the truth about the limits of their knowledge.

R 24. Most parents can be relied upon to carry out their threats of punishment.

F 25. One should not attack the political beliefs of other people.

26. In these competitive times one has to be alert or someone is likely to take advantage of you.

F 27. Children need to be given more guidance by teachers and parents than they now typically get.

F 28. Most rumors usually have a strong element of truth.

29. Many major national sport contests are fixed in one way of another.

F 30. A good leader models the opinions of the group he is leading rather than merely following the wishes of the majority.

R 31. Most idealists are sincere and usually practice what they preach.

R 32. Most salesmen are honest in describing their products.

F 33. Education in this country is not really preparing young men and women to deal with the problems of the future.

1. Strongly agree 2. Mildly agree 3. Agree and disagree equally
4. Mildly disagree 5. Strongly disagree

4 34. Most students in school would not cheat even if they were sure of getting away with it.

F 35. The hordes of students now going to college are going to find it more difficult to find good jobs when they graduate than did the college graduates of the past.

R 36. Most repairmen will not overcharge even if they think you are ignorant of their specialty.

37. A large share of accident claims filed against insurance companies are phony.

F 38. One should not attack the religious beliefs of other people.

R 39. Most people answer public opinion polls honestly.

40. If we really knew what was going on in international politics, the public would have more reason to be frightened than they now seem to be.

APPENDIX VII

Haymes Technique for Measuring Self-Disclosure from Tape-Recorded Interviews

Haymes Technique for Measuring Self-Disclosure from Tape-Recorded Interviews

Code and Scoring Manual for Self-Disclosure

Self-disclosure will include four major categories of response:

1. Expressions of emotion and emotional processes.
2. Expressions of needs.
3. Expressions of fantasies, strivings, dreams, hopes.
4. Expressions of self-awareness.

Self-disclosure will specifically exclude opinions about objects other than self unless the person obviously intends the opinion to be saying something about himself. Since this experiment deals with the acquaintance process, it is only rarely that one comes across such inferential statements without their being followed up by a clarifying remark which is scorable under one of the categories below.

Although much self-disclosure of the types described below is stated in the first person singular, it is possible to make self-disclosing statements in the third person. Examples of both types are included below.

Scoring Procedure

A score of 2 points will be given to disclosures of the defined types when they are first person references.

A score of 1 point will be given to the disclosures of the same types when they are reflexive third person references. These statements in the third person in which the word "you" is an obvious substitution for saying "I".

Non-reflexive third person references, such as "people always...", in which the person is not really revealing any information about himself will not be scored.

For this experiment, ratings will be given for each 30 seconds of interaction. In any 30-second segment, only the score for the maximally disclosing statement will be used. In other words, if a person makes 1, 2, or 10 2-point disclosures in any 30-second segment his score is 2 points for that segment. This avoids inaccurately scoring for speech pattern repetitions. Similarly, if a person makes a 1-point statement, and a 2-point statement in the same 30-second segment, his score is 2 points for that segment.

Examples

1. Expressions of emotions and emotional processes:

Irritation--"It really bugs me..." "You get peeved at..." "It makes me sick when..." "It drives me crazy..." Also references to being agitated, irritated, testy, etc.

Anger, rage, hostility, hate, bitterness, resentment--"It gets me very angry when..." "You (I) just naturally hate people like her."

Excitement, involvement, concern, etc.--"I get all caught up in..." "It gets to me..." "It gets me goin'" "I'm really close to my father." "I'm excited by..." Also the opposite of involvement. "I can't seem to get into the material." "Boredom is one of my big problems."

Sad, blue, apathetic, cheerless, depressed, grief, mournful, pensive, gloomy, etc.--"It depresses me when..." "I get blue frequently."

Happy, contented, delighted, feeling great, secure, feeling well (strong, confident, etc.), assured, pleased, jovial, elated, euphoric, merry--"I feel great when she..." "You really feel good when..." (Also the opposite of feeling well and strong, i.e., discussion of health problems, physical complaints, expression of general lack of the feeling of well being.) expressions which have been leached of their emotional content are not scored.

2. Expressions of needs, demands made upon others in contact with self: "I demand a great deal of attention." "I don't feel too motivated to do much of anything." "All I want is..." These will frequently be expressed in statements of self-awareness (see below).

3. Expressions of self-awareness, internal forces, processes, capabilities, and/or the lack of them. "You (I) tell yourself that..." "I rationalize that by..." "That's one of my handicaps." "I don't panic easily." "I get mad at myself..." "I have the worst time with writing." "It's not a natural thing for me..." "It's easy for me to..." "It's really bad for me when I..." "I'm torn between..." "I'm not mature." "I'm not too hot at..." "I can't possibly integrate all that stuff." "You (I) adjust to things..." "I can think logically but math is impossible." "I identify with people who..." "I get very sentimental when..." "I'm a night-time person."

4. Expressions of fantasies, hopes, strivings, long-range plans, etc. "I've wanted to be a doctor since I was five years old." "I frequently dream that I'm..." "I dream of the day when..."

Surprise, shock, astonishment, amazement. "She really shocked me terrifically with her openness." "I love being surprised."

Sorry, repentent, ashamed, guilty, etc: "I feel very guilty about..." "I always feel sorry when..."

Pride, self-esteem, feelings of fulfillment, self-confidence. "I felt good about when I did that for her." "I've been feeling great lately."

Confused, perplexed, puzzled, cloudy, incoherent, disoriented, uncertain, etc. To be scored the statement must indicate some emotional disorientation or confusion. (i.e., "My math homework confuses me", is not scored.) "Situations like that puzzle the hell out of me." "I just don't know how I feel about it."

Anxious, tense, afraid, on-edge, overwrought, upset, distressed, worried, etc. "I get really tense in situations like this." "It worries me when..." "She scares me." "You (I) get frightened when..."

Love, tenderness, affection, warmth, caring-for another, passion, arousal (sexual), withdraw at times like that."

Love, tenderness, affection, warmth, caring-for another, passion, arousal (sexual), etc. "I loved her before she..." "I was so hung up on her that I couldn't even..." (Colloquial).

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